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1982-83
FACULTY OF GRADUATE STUDIES AND RESEARCH



McGill University
Montreal

Dawson Hall, Room 313
853 Sherbrooke Street West
Montreal, PQ, Canada H3A 2T6
Telephone (514) 392-5092

General Information and Faculty Regulations

All courses listes in this announcement will be offered in 1982-83 unless a ● appears left of the course number.

The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

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1982-83
FACULTY OF
GRADUATE STUDIES
AND RESEARCH

CALENDAR OF DATES FOR SESSION 1982-83

1982

May 3-14	Registration for Summer **TERM**. (Master's students only.)
May	Results of Graduate Faculty Fellowship competition. (Major and summer awards.)
May 3-August 31	Summer Term. (Not all departments offer a Summer term. Please check with the individual department.)
May 5	Last day to submit marks for full year and Winter term courses for all students.
May 10	Non-thesis forms to be returned to the Thesis Office for Spring 1982 Convocation.
May 17	Last day to hold Doctoral Orals for Spring 1982 Convocation.
May 24	Victoria Day. Administrative offices will be closed.
June 1	Forms nominating examiners for students' theses for Fall 1982 Convocation to be returned to the Thesis Office.
June 8, 9	Convocations.
June 24	La Fête Nationale du Québec. Administrative offices will be closed (unless changed by legislation).
June 25	Summer hours. Administrative offices close Fridays from June 25 to September 6.
July 1	Dominion Day. Administrative offices will be closed.
July 2	Deadline for applications for admission to most departments in the Faculty of Graduate Studies and Research. (Many departments have earlier deadlines. Please verify this date with the individual department.)
August 16	Last day to submit Doctoral theses for Fall 1982 Convocation.
August 23	Last day to submit Masters' theses for Fall 1982 Convocation.
August 24, 25	Registration for students in MBA 2 **PART-TIME**. Please consult the MBA office for specific information.
August 26	Registration for students in MBA 2 **FULL-TIME**. Please consult the MBA office for specific information.
September 3	Registration for students in MBA 1 **FULL-TIME**. Please consult the MBA office for specific information.
September 6	Labour Day. Administrative offices will be closed.
September 7-17	Registration period for Fall and Winter terms (except for above MBA students). Registration takes place in individual departments.
September 7	Lectures begin in graduate management courses.
September 7,8,9	Registration for graduate students in Education.
September 13	Lectures begin, Fall term (except in graduate management courses). Non-thesis forms to be returned to the Thesis Office for Fall 1982 Convocation.
September 17	Completed registration forms to be returned to the Graduate Faculty on or before this date.
September 27	All thesis reports for Fall 1982 Convocation must be returned to the Thesis Office.
September 30	Additional session students who submit theses **ON OR BEFORE** this date are not required to register for the Fall term. Last day in the Fall term for all students to officially withdraw from the University in order to obtain a complete refund of tuition fees (less the $50 minimum charge). Last day to withdraw from Fall term ("A") and full year ("D") courses in order for the course to be deleted from the student's record. Students will receive a "W" for Fall term ("A") courses until November 5, 1982 and for full year ("D") courses until December 3, 1982. Students paying tuition fees on a per course basis: Last day to withdraw from Fall term and full year courses in order to obtain a complete refund.

October 5	Last day to submit marks for summer courses and projects for students graduating in the Fall 1982 Convocation.
October 11	Thanksgiving. Administrative offices will be closed.
October 13	Last day to hold Doctoral Orals for Fall 1982 Convocation.
October 16	Last day to change immigration status in the Fall term.
TBA	Fall 1982 Convocation.
November 5	Last day to withdraw from a Fall term ("A") course.
November 15	Last day to submit theses for Winter 1983 granting of degrees.
December 3	Last day to withdraw from a full year ("D") course.
December 6	Fall term lectures end in graduate management courses.
December 10	Fall term lectures end (except in graduate management courses).
December 25	Christmas Day. Closing of administrative offices to be announced.

1983

January 5	Non-thesis forms to be returned to the Thesis Office for Winter 1983 granting of degrees. Winter term lectures begin (except in graduate management courses).
January 5,6	Winter registration for students in MBA 2 **PART-TIME**.
January 6-14	Winter registration for new students or students changing programs. Registration takes place in individual departments.
January 7	Last day to submit marks for Winter 1983 granting of degrees.
January 10	Winter term lectures begin in graduate management courses.
January 10, 11	Winter registration for graduate students in Education.
January 14	Completed registration forms to be returned to the Graduate Faculty on or before this date. Last day for payment of Winter term fees. Last day to submit marks for Fall term courses for non-graduating students.
January 31	Last day in the Winer term for all students to officially withdraw from the University in order to obtain a complete refund of Winter term tuition fees (less the $50 minimum charge). Students paying tuition fees on a per-course basis: Last day to withdraw from a Winter term course in order to obtain a complete refund. Last day to withdraw from Winter term ("B") courses inorder for the course to be deleted from the student's record. Students will receive a "W" for Winter term ("B") courses until March 4, 1983.
February 1	Forms nominating examiners for students' theses for Spring 1983 Convocation to be returned to the Thesis Office. Additional session students who submit theses ON OR BEFORE this date are not required to pay Winter term fees.
February 4	Winter Carnival. Mid-term holiday.
February 12	Last day to change immigration status in the Winter term.
February 15	Deadline for Graduate Faculty fellowship applications.
February 24, 25	Study Break.
March 4	Last day to withdraw from Winter term ("B") courses.
March 14	Last day to submit Doctoral theses for Spring 1983 Convocation.
March 21	Last day to submit Masters' theses for Spring 1983 Convocation.
April	Results of Graduate Faculty fellowships competition (major and summer awards).

April 3	Easter. Administrative offices will be closed Thursday, March 31, 5:00 p.m. until Tuesday, April 5, at 9:00 a.m.
April 8	Lectures end, Winter term.
April 25	All thesis reports for Spring 1983 Convocation must be returned to the Thesis Office.
May 2-13	Registration for Summer **TERM**. (Master's students only.)
May 2-August 31	Summer term. (Not all departments offer a Summer term. Students should contact individual departments.)
May 6	Last day to submit marks for full year and Winter term courses for all students.
May 9	Non-thesis forms to be returned to the Thesis Office for Spring 1983 Convocation.
May 16	Last day to hold Doctoral Orals for Spring 1983 Convocation.
May 24	Victoria Day. Administrative offices will be closed.
June 1	Forms nominating examiners for students' theses to be returned to the Thesis Office.

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1 GENERAL INFORMATION

1.1 ADMINISTRATIVE OFFICERS

UNIVERSITY

DAVID L. JOHNSTON, A.B.(Harv.), LL.B.(Cantab. & Queen's), LL.D.(L.S.U.C.)
Principal and Vice-Chancellor

SAMUEL FREEDMAN, B.Sc., M.D., C.M.(McG.), F.R.C.P.(C), F.A.C.P., F.R.S.C.
Vice-Principal (Academic)

JOHN ARMOUR, AACCA **Vice-Principal (Administration and Finance)**

E.J. STANSBURY, B.A., M.A., Ph.D.(Tor.)
Vice-Principal (Planning and Academic Services)

GORDON A. MACLACHLAN, B.Sc., M.A.(Sask.), Ph.D.(Man.) **Vice-Principal (Research)**

L.E. LLOYD, B.Sc.(Agr.), M.Sc., Ph.D.(McG.).
Vice-Principal (Macdonald Campus)

COLIN M. McDOUGALL, D.S.O., B.A.(McG.)
Secretary-General

JEAN-PAUL SCHULLER, B.A.(Ott.) **Registrar**

MICHAEL HERSCHORN, M.A., Ph.D.(McG.)
Dean of Students

PEGGY SHEPPARD, B.Ed.(McG.), B.A.(Sir G. Wms.) **Admissions Office, Director**

ALTA ABRAMOWITZ, B.A., M.Ed.(McG.)
Information & Liaison Office, Director

MARIANNE F. SCOTT, B.A., B.L.S.(McG.)
University Libraries, Director

FACULTY ADMINISTRATIVE OFFICERS

GORDON A. MACLACHLAN, B.Sc., M.A. (Sask.), Ph.D. (Man.) **Vice-Principal (Research) and Dean of the Faculty**

M.J. ECHENBERG, M.A.(McGill), Ph.D.(Wis.)
Associate Dean

ROBERT D. JAPP, B.Eng., M.Eng., Ph.D.(McG), Eng. **Associate Dean**

ROSEMARY WOODHOUSE
Secretary of Faculty

A. MONSAROFF, B.A.Sc.(Tor.)
Research Contracts Officer

B.J. GICK, B.Com.(Sir G. Wms.)
Research Grants and Awards Officer

R.H. LATT, D.V.M.(Ont. Vet. Coll.)
Animal Care Officer

MEMBERS OF THE FACULTY

Every full-time member of the teaching staff, who is actively engaged in the instruction of graduate students, is a member of the Faculty.

COUNCIL OF THE FACULTY

Council consists of about 200 staff members and about 100 graduate student members.

EXECUTIVE COMMITTEE OF COUNCIL

Prof. H.P. GLENN
Mr. A. HABER
Prof. E.S. IDZIAK
Prof. W. LAMBERT
Prof. D.P. LITTLE
Prof. J. MARSDEN
Prof. R.N. MORRISON
Prof. W.C. PURDY
Mr. C. ROHLICEK
Prof. B. SHORE
Prof. T. SOURKES
Prof. W.M. WILLIAMS

2 REGULATIONS

GENERAL STATEMENT CONCERNING HIGHER DEGREES

The Faculty of Graduate Studies and Research administers all programs leading to graduate diplomas and higher degrees. It is responsible for the admission of candidates, the supervision of their work and for recommending to Senate those who may receive the degrees and diplomas.

GRADUATE DIPLOMAS

Graduate Diplomas are programs of study under the academic supervision of the Faculty of Graduate Studies and Research. They have as a pre-requisite an undergraduate degree in the same discipline.

McGill University offers other diploma and certificate programs under the supervision of the relevant undergraduate faculties and their Announcements should be consulted for further details.

Graduate Diplomas are offered in:
Advanced Social Work Practice
Air and Space Law
Environmental Remote Sensing
Epidemiology and Health
Exploration Geophysics
Geological Sciences
Mining Engineering

Northern Studies
Occupational Hygiene
Public Accountancy

These programs consist of at least two terms of full-time study or the equivalent.

All regulations of the Faculty apply to Diploma candidates.

DEGREES

Two categories of programs lead to higher degrees at McGill University: Master's programs and Doctoral programs.

The following degrees are offered:
Master of Architecture (M.Arch.)
Master of Arts (M.A.)
Master of Business Administration (M.B.A.)
Master of Business Administration
Bachelor of Civil Law (M.B.A./B.C.L.)
Master of Business Administration
Bachelor of Laws (M.B.A./L.L.B.)
Master of Civil Law (M.C.L.)
Master of Education (M.Ed.)
Master of Engineering (M.Eng.)
Master of Laws (LL.M.)
Master of Library Science (M.L.S.)
Master of Music (M.Mus.)
Master of Science (M.Sc.)
Master of Science (Applied)(M.Sc.A.)
Master of Sacred Theology(S.T.M.)
Master of Social Work (M.S.W.)
Master of Urban Planning (M.U.P.)
Doctor of Civil Law (D.C.L.)
Doctor of Education (D.Ed.)
Doctor of Music (D.Mus.)
Doctor of Philosophy (Ph.D.)

Master's Degrees

Residence Requirements

Refers to the number of terms (or years) students must be registered on a full-time basis to complete their program. Students are NOT permitted to graduate until they have fulfilled the residence requirement (or paid the corresponding fees) in their program.

a) The following Master's programs have a **minimum** residence requirement of **three full-time terms:** M. Arch, M.A., M.C.L., M. Eng. (**except** M. Eng. Option B – Mining), LL.M., M. Mus. (**except** M. Mus in Sound Recording), M.Sc. (**except** M.Sc. in Oral Surgery), M.Sc.A. (**except** M.Sc.A. in Geological Sciences, Health Sciences (Rehabilitation), Human Communication Disorders), M.S.W.

b) The following Master's programs have a **minimum** residence requirement of **four full-time terms:** M. Eng. Option B – Mining, M. Mus. in Sound Recording, M.Sc.A. in Geological Sciences, Health Sciences (Rehabilitation), Human Communication Disorders, M.U.P.

c) The residence requirement for the Master's program in Education (M.A. and M.Ed.), Library Science (M.L.S.) and Religious Studies (S.T.M.) is determined on a per course basis.

These designated periods of residence represent minimum time requirements. There is no guarantee that the work for the degree can be completed in this time. Students may register for such additional terms as are needed to complete the program.

Some departments may permit Masters students to register for a term in the summer to fulfill part of the residence requirements. Students must consult the individual department as to the availability of such a term.

Course Work

There is no specified number of courses required by the Faculty for research degrees. Program requirements are outlined in the relevant departmental sections of the Announcement.

The Department concerned will examine the student's previous training and then decide which of the available courses in the area of specialization or related fields are required to bring the candidate to the proper level for the Master's degree. Due account will be taken of relevant courses passed at any recognized university.

Non-research degrees, which are generally of an applied or professional character, normally specify the course program which the candidate must follow.

The candidate is required to pass, with a mark of 65% or better, all those courses which have been designated by the department as forming a part of the program. These are the courses which have been entered on the registration form. A few extra courses may be taken, but it is then the responsibility of the student to see that these courses are clearly marked "not required" (ie "X") on the registration form.

In certain cases a student may wish to audit a course. Permission must be obtained from the student's department and from the instructor but the course is **not** entered on the registration form. No notation of audited courses will appear on the transcript and the student will not receive credit for them.

Research and Thesis

All candidates for a research degree must present a thesis based on their own research. The title of the thesis must be forwarded in writing through the chairman of the department concerned to the Thesis Office at least two months before the thesis is submitted to the Faculty. A thesis for the Master's degree, while not necessarily requiring an exhaustive review of work in the particular field of study, or a great deal of original scholarship, must show familiarity with previous work in the field and must demonstrate the ability to carry out research and

to organize results, all of which must be presented in good literary style. The thesis will not normally exceed 100 pages; in some disciplines, shorter texts are preferred. **For further regulations regarding theses see page 12.**

Language Requirements

Most Master's degree programs do not contain language requirements but candidates who intend to proceed later to a Doctoral degree should take note of any language requirements and are strongly advised to take the examinations in at least one language while working for the Master's degree.

The Degree of Master of Architecture

Instruction for the degree of Master of Architecture is given in either of the following fields of specialization.

Architectural Design
Housing

Pre-requisites: Bachelor of Architecture or equivalent professional degree.

See also Section "E".

The Degree of Master of Arts

Programs leading to the degree of Master of Arts are provided in the following areas:

Anthropology
Art History
Classics
Communications
Comparative Literature
Economics
Education
English
French
Geography
German
Hispanic Studies
History
Islamic Studies
Italian
Jewish Studies
Linguistics
Mathematics
Music
Philosophy
Political Science
Psychology
Religious Studies
Russian
Sociology

Pre-requisites: Bachelor of Arts in the subject selected for graduate work.

See also Sections "C", "E", "F", "G", and the Announcement of the Faculty of Religious Studies.

The Degree of Master of Business Administration

Programs leading to the degree of Master of Business Administration are offered in the Faculty of Management.

Students may specialize in the following areas of concentration:

Accounting and Finance
Finance
Human Resource Management
Institutional Finance and Real Estate
Industrial Relations
International Business
- Finance
- Management
- Marketing

Management Information Systems
Management Policy
Management Science
Managerial Economics
Marketing
Public Sector Management
Regulated Industry Management
Small Business

Pre-requisites: An undergraduate degree in Arts, Science, Commerce or Engineering plus satisfactory scores in the Princeton Tests for Graduate Studies in Business. Some business experience is preferred.

See Also Section "I".

The Joint M.B.A./Law Degrees

A combined program leading to the degree of Master of Business Administration and either a Bachelor of Civil Law or a Bachelor of Laws.

Pre-requisites: Students who are interested in applying to either the M.B.A./B.C.L. or M.B.A./L.L.B. degrees must meet the entrance requirements of both Faculties and must also demonstrate a substantial fluency in both the French and English languages.

Master's Degrees in Education

Two types of Master's degrees are offered: M.A. (with thesis) and M.Ed. (without thesis).

The M.A. may be taken in the following areas:

Counsellor Education
Comparative Education
Educational Administration
Educational Psychology
History of Education
Philosophy of Education
Physical Education

The M.Ed. may be taken in the following areas:

Counsellor Education
Educational Administration
Educational Psychology
Elementary Education
Reading
Special Education
Teaching of Art

Teaching Subjects (Biology, Chemistry, English, English as a Second Language, French as a second Language, Home Economics, Geography, History, Mathematics and Physics).

Pre-requisites: A Bachelor's degree with specialization related to the subject chosen for graduate work plus a Permanent Québec Teaching Diploma or its equivalent.

See also Section "G".

Master's Degree in Engineering

Two types of programs lead to a Master of Engineering: "Option A" requiring a thesis and "Option B" not requiring a thesis. Both Options are offered in the following areas:

Chemical Engineering
Civil Engineering
Electrical Engineering
Mechanical Engineering

Candidates wishing to specialize in Mining and Metallurgical Engineering should consult Section "E" for regulations concerning the following degrees:

M.Eng. In Mining, Metallurgy and Applied Geophysics (thesis and non-thesis options)
M.Sc. in Mining and Metallurgy

Pre-requisites: Bachelor of Engineering or equivalent, with specialization appropriate for the subject selected for graduate study.

See also Section "E".

Master's Degrees in Law

The degree of Master of Laws is offered in:

Air and Space Law
Comparative Law

The degree of Master of Civil Law is offered by the Institute of Comparative Law.

*Pre-requisites:*An acceptable degree in Law or equivalent qualifications.

See also Section "F".

The Degree of Master of Library Science

The School of Library Science offers a two year professional program in the principles and skills of librarianship.

Pre-requisites: A Bachelor's degree in Science, Arts, etc. Specialization in the humanities, sciences, or social sciences is preferred. A knowledge of at least one language other than English is expected.

See also Section "H".

Master's Degrees in Music

Programs leading to the degrees of Master of Arts and Master of Music are offered in the Faculty of Music. The M.A. may be taken in:

Musicology
School Music
Theory

The M.Mus. may be taken in:

Composition
Performance
Sound Recording

Applicants to the Performance program are required to pass auditions in their specialty.

Pre-requisites: Bachelor of Music or Bachelor of Arts with concentration in the area selected for graduate study.

See also Section "C".

Master's Degrees in Nursing

Two programs are offered leading to the degree of Master of Science Applied in Nursing: Option A, Clinical Nursing Practice and Option B, Research in Nursing and Health Care.

Pre-requisites: Preparation in nursing comparable to the Bachelor's degree offered at McGill and accomplishment and development as a nurse. A current nursing registration is required. Non-nurses with a Bachelor's degree may apply for entrance to a Qualifying Year.

See also the Announcement for the School of Nursing.

Master's Degrees in Religious Studies

A program leading to the degree of Sanctae Theologiae Magister is given in the Faculty of Religious Studies. This degree is primarily for those who intend to enter the ministry of the Christian Church or another religious institution, or to proceed to teaching in schools. A Master of Arts program (with thesis) is also available.

Pre-requisites: B.A. with specialization in religious studies or theology.

See also the Announcement of the Faculty of Religious Studies.

The Degree of Master of Science

Programs leading to the degree of Master of Science are provided in the following areas:

Agricultural Chemistry
Agricultural Engineering
Agricultural Physics
Anatomy
Animal Science
Biochemistry
Biology
Biomechanics
Chemistry
Computer Science
Crystallography
Entomology
Epidemiology and Health
Fluid Mechanics
Geography
Geological Sciences
Health Sciences (Rehabilitation)
Human Communication Disorders
Marine Sciences
Mathematics
Medicine, Experimental
Meteorology

Microbiology and Immunology
Microbiology (Macdonald Campus)
Mining and Metallurgical Engineering and Applied Geophysics
Neurology and Neurosurgery
Oceanography
Otolaryngology
Parasitology
Pathology
Pharmacology
Physics
Physiology
Plant Science
Psychiatry
Psychology
Renewable Resources
Surgery, Experimental

Pre-requisites: Bachelor of Science in the subject selected for graduate work.

See also Sections "A", "B", "D" and "E", and the Announcement for the School of Physical and Occupational Therapy, and Medicine.

The Degree of Master of Science Applied

This degree was designed to provide postgraduate training of a professional and vocational character, with less emphasis on theoretical knowledge and research than in Master of Science programs, but with no lower standards either for admission or completion of requirements. Two years of full-time study or equivalent are required with an emphasis on course work.

Programs are available in:
Computer Science
Geological Sciences
(Engineering Geology or Mineral Exploration)
Human Communication Disorders
Medical Radiation Physics
Microbiology and Immunology
Nursing
Psychology

Pre-requisites: A Bachelor's degree in the subject selected for graduate work.

See also Sections "B", "D", and "E" and the Announcement for the School of Nursing.

The Degree of Master of Social Work

The M.S.W. degree represents a second level of professional study in which students build competence in a chosen field of practice.

Pre-requisites: Bachelor's degree in Social Work including courses in statistics and social science research methods. See also the Announcement of the School of Social Work.

The Degree of Master of Urban Planning

The program requires a minimum of two years residence and a 3 month internship with a member of a recognized planning association.

Pre-requisites: Bachelor's degree in any one of the following: Anthropology, Architecture, Economics, Civil Engineering, Geography, Law, Management, Political Science, Social Work, Sociology or Urban Planning, with adequate knowledge of quantitative techniques.

See also Section "E".

Doctoral Degrees

Residence Requirements

Refers to the numbers of terms (or years) a students must be registered on a full-time basis to complete their program. Students are NOT permitted to graduate until they have fulfilled the residence requirement (or paid the corresponding fees) in their program.

Candidates must follow a program of at least three years resident study at the University; this is a minimum requirement, and there is no guarantee that the work of the degree can be completed in this time.

It is customary for candidates to spend the greater part of each summer working on their theses, and those who do not do so are unlikely to complete a satisfactory thesis in the prescribed minimum time; in certain subjects, e.g. in Agricultural Sciences, summer researches are indispensable.

A student who has obtained a Master's degree at McGill University or at an approved institution elsewhere, and is proceeding **in the same subject** to a Ph.D. degree may, on the recommendation of the department, be permitted to count the work done for the former as the first year (Ph.D. 1) of resident study for the Doctor's degree.

The attention of students seeking admission on this basis is drawn to the language requirements for which they are advised to prepare themselves in advance.

Comprehensive Examinations

The first two years (Ph.D. 1 and 2) include instruction, training and direction in the candidate's field of study, with the object of providing thorough knowledge of the particular subject and its relation to cognate branches of learning; this period should also prepare the candidate for independent investigation.

A comprehensive examination or its equivalent is usually held near the end of Ph.D. 2. The results of this examination determine whether or not students will be permitted to continue in their programs. The methods adopted for examination and evaluation and the areas to be examined are specified by departmental regulations approved by the Graduate Faculty. It is the responsibility of students to inform themselves of these details at the commencement of their programs.

The final years (Ph.D. 3 and Additional Sessions if required) are devoted to research and to the preparation of a thesis. Students are encouraged to begin their research as early as possible.

Language Requirements

Most graduate departments in the Faculties of Agriculture, Education, Engineering, Management, Medicine and Science do not require a language examination. Students should enquire of their departments if there are any such requirements or whether any other requirements have been substituted for those relating to languages.

Graduate departments in the Faculties of Arts, Music and Religious Studies usually require proficiency in one or two languages other than English. In all cases **students should consult departmental regulations concerning language requirements.**

Language requirements for the Ph.D. degree are met through demonstrated reading knowledge. The usual languages are French, German, or Russian, but in particular instances another language may be offered on the recommendation of the department and the authorization of the Associate Dean.

The normal examination requirements are:

i. One examination in each of two languages

OR

ii. two examinations in a single language. The first examination is comparable in difficulty with that indicated in (i) above; the second, normally written one year later, demands greater proficiency. **All** language requirements must be fulfilled and the marks reported to the Records Office **before** the Dean will accept the thesis.

Language Reading Proficiency Examinations in French, German or Russian will be conducted by the Departments offering instruction in those languages. Students may, however, demonstrate competence by a pass standing in two undergraduate language courses taken at McGill at a level deemed acceptable by the Associate Dean.

Some Departments require candidates to take the Language Examinations administered by the Educational Testing Service, Princeton.

Candidates are advised to discharge their language requirements as early in their program as possible.

The Departments of French, German and Russian offer courses open to Ph.D. candidates to help them acquire the necessary reading knowledge of the language.

Students expecting to enrol in Professional Corporations in the Province of Québec are advised to become fluent in both spoken and written French.

Courses in French language are available at the Centre for French and English as Second Languages. The teaching is intensive and class sizes are kept small. While undergraduate students are given preference, graduate students who are certain they can devote sufficient time to the work may enrol.

Thesis

The thesis for the Ph.D. degree must display original scholarship expressed in satisfactory literary form and must be a distinct contribution to knowledge. The subject of this thesis must have been approved by the Chairman of the Department and entered on the Registration Form. The exact title must be submitted to the Thesis Office at least TWO months before thesis submission.

Seven copies of the thesis must be provided by the candidate. Of these, two copies will be retained by the University and five copies returned to the candidate. (Some Departments may require one or more additional copies.)

Special regulations for the Ph.D. degree in particular departments are stated in the entries of these departments.

Thesis Oral Examination

After the thesis has been received and approved, a final oral examination is held on the subject of the thesis and subjects intimately related to it. This is conducted in the presence of a Committee of at least five members approved by the Dean of the Faculty on behalf of the Executive Committee, and presided over by him or by a Pro-Dean nominated by him. The Chairman of the candidate's department and the Thesis Supervisor are regularly invited to be members of the Committee; at least one member of the Committee is appointed from outside the candidate's department.

The Degree of Doctor of Civil Law

Doctoral programs are offered by the Institute of Air and Space Law and the Institute of Comparative Law. Both are predominantly research degrees awarded on the basis of a thesis that represents an original contribution to the development of legal science.

Pre-requisites: B.C.L. or LL.B. and usually LL.M.

See also the Announcement of the Faculty of Law.

The Degree of Doctor of Education

A program leading to a doctorate in Education is offered by the Department of Counsellor Education. it is a professional program providing advanced training in one of three areas of specialization:

Elementary School Counselling
Secondary School Counselling
Student Personnel Counselling

A thesis is required.

Pre-requisites: M.Ed. in Counsellor Education

See also Section "G".

The Degree of Doctor of Music

The Doctor of Music degree is offered in Composition. The Doctoral thesis consists of a musical composition of major dimensions together with a written analysis of the work. The composition is presented by the candidate in concert. The regulations set forth for the Ph.D. generally apply also to the D.Mus.

Pre-requisite: M.A. in composition

See also Section "C".

The Degree of Doctor of Philosophy

Pre-requisites: An undergraduate degree relevant to the subject chosen for graduate work. Some departments require all Ph.D. candidates to hold a Master's degree in the same subject. Many departments will require candidates who do not already hold an appropriate Master's degree to register for such a degree rather than for the Ph.D. directly. They may later recommend to the Executive Committee of the Faculty that candidates of undoubted promise should be allowed to proceed directly to the Ph.D. degree without being required to submit a Master's thesis.

Programs leading to the degree of Doctor of Philosophy are offered in the following areas:

Agricultural Chemistry
Agricultural Engineering
Anatomy
Animal Science
Anthropology
Art History
Biochemistry
Biology
Chemical Engineering
Chemistry
Civil Engineering
Classics
Communications
Computer Science
Economics
Electrical Engineering
English
Entomology
Epidemiology and Health
French
Geography
Geological Sciences
German
History
Human Communication Disorders
Islamic Studies
Linguistics
Management
Marine Sciences
Mathematics
Mechanical Engineering
Medicine, Experimental
Meteorology
Microbiology and Immunology
Microbiology (Macdonald Campus)
Mining and Metallurgical Engineering and applied Geophysics
Neurology and Neurosurgery
Parasitology
Pathology
Pharmacology
Philosophy
Physics
Physiology
Plant Science
Psychology
Religious Studies
Renewable Resources
Russian
Sociology
Surgery, Experimental

A Program in Educational Psychology has been presented and awaits full authorization.

Ad Hoc Programs

In special cases where a student wishes to take a Master's or a Doctoral degree either in a department not currently authorized to offer one, or in an interdisciplinary area, direct application may be made to the Dean of the Faculty to authorize an **ad hoc** degree program. Guidelines pertaining to the admission and supervision of **ad hoc** degree candidates may be obtained from the Associate Dean.

GRADING SYSTEM

Classification of Marks:

A – 85–100%
A– – 80–84%
B+ – 75–79%
B – 70–74%
B– – 65–69%
F – 0–64%; failure
P – *Pass;* Pass/Fail grading is restricted to certain seminars and examinations only. In such cases all grades in these courses are recorded as either Pass or Fail
J – *Absent;* to be recorded for the student who did not write the final examination and had not been granted deferred status, or who did not complete an essential part of the course requirements without a valid reason. This is equivalent to 0%.
K – *Incomplete;* deadline extended for submission of work in a course or for the completion of a program requirement such as a Ph.D. language examination (maximum four months).
KF – *Incomplete/failed;* failed to meet to the extended deadline for submission of work in a course or for the completion of a program requirement.
KK – not required to complete the course. This is used in exceptional cases only.

K* – further extension granted with the approval of the Associate Dean.

L – *Deferred;* for students whose final examinations have been deferred, for reasons such as illness, at the time of the examination. A medical certificate or appropriate document must be submitted with a recommendation for a deferral.

N – *Withdrew without approval.* Thisis equivalent to 0%.

HH – *To be continued.* The use of this grade is reserved for major research projects, monographs and comprehensive examinations as designated by the Faculty of Graduate Studies.

Q – *Course continued in next term.*

R – *Course credit;* if a student has been *required* to take the course but not the final examination for credit, and "R" should be used. (Limited use.)

W – *Withdrew with approval.* A course dropped, with permission, after the change of course period.

&& – *Grade not yet available.*

-- – *No grade.* Student withdrew from the university.

Special codes:

X – *Extra course.* Not required for the student's degree or diploma.

E – *Pass at the undergraduate level only.* Students who obtain marks between 55 and 64% in courses not required for the degree sought may, on the recommendation of the major department, be recorded as having "passed at the undergraduate level".

Failures: Students who have failed in required examinations are permitted to write supplemental examinations only on the recommendation of the department and with the permission of the Associate Dean. Individual departments may have special regulations concerning failures. It is the student's responsibility to ascertain what these regulations are.

A student who has failed in any course required for the degree and has not received permission to attempt a supplemental examination will be required to withdraw. Only under exceptional circumstances may permission be granted by the Associate Dean, on the recommendation of the department, for the student to repeat any such course. In such a case the student may be required to pay the fee charged to special students for the course in question.

ADMISSION

Admission Requirements

Applicants should be graduates of a university of recognized reputation and hold a Bachelor's degree equivalent to a McGill Honours degree in a subject closely related to the one selected for graduate work. This implies that about one third of all undergraduate courses should have been devoted to the subject itself and another third to cognate subjects. Some Major Programs (at McGill and elsewhere) contain the necessary amount of specialization and may qualify the applicant for consideration.

The applicant must present evidence of high academic achievement: a standing equivalent to a Cumulative Grade Point Average (CGPA) of 2.8 out of a possible 4. High grades are expected in courses considered by the Department to be preparatory to the graduate program.

Some departments impose additional requirements and even though the applicant may appear to satisfy the general admission requirements, acceptance into a graduate degree program is not guaranteed.

Graduate Record Examination

The attention of applicants for admission to the Faculty is directed to the Graduate Record Examination (GRE) (Educational Testing Service, Princeton, N.J. 08540). This examination consists of a relatively advanced test in the candidates' specialty, and a general test of their attainments in the several basic fields of knowledge, for which no special preparation is required or recommended. It is offered at many centres, including Montreal, several times a year; the entire examination occupies some eight hours, and the registration fee is $25.00. Applicants to graduate programs in Management must submit scores from the Graduate Management Admissions Test (GMAT). Only some departments uniformly require applicants to write the GRE examination, but all applicants who have written either the general aptitude or the advanced test are advised to submit the scores along with their other admission material.

This credential is of special importance in the case of applicants whose education has been interrupted, or has not led directly towards graduate study in the subject selected. In such cases the department has the right to insist on a report from the Graduate Record Examination or some similar test. High standing in this examination will not by itself guarantee admission. The Miller Analogies Test may be used similarly. Some departments of the Faculty of Education also require the taking of various tests.

In cases of doubt as to proficiency in English, an applicant may be required to submit the results of tests administered by the Educational Testing Service.

Admission to a Qualifying Program

Some applicants whose academic degrees and standing entitle them to serious consideration for admission to graduate studies, but who are considered inadequately prepared in the subject selected may, with the permission of the department concerned and of the Associate Dean, be admitted to a *"Qualifying Program"*. The courses to be taken in a *"Qualifying Program"* will be prescribed by the department concerned. "Qualifying students" are registered in the Graduate Faculty, **but not as candidates for a degree.** Only one qualifying year (ie. two full-time terms) is permitted. In cases where a department recommends a change of registration from *"Qualifying Program"* to "Master's Degree 1st Year" **this change must be made prior to January 14.** Completion of the work of the *"Qualifying Program"* does not automatically entitle the student to proceed towards a degree. Students who are ineligible for a *"Qualifying Program"* may apply to the appropriate undergraduate faculty for admission as regular or special students, and seek admission to the Graduate Faculty at a later date.

Admission to a Second Degree Program

A candidate with a given higher degree may apply for admission to a second degree program at the same level but **in a different subject.** The normal admission requirements must be met and all the usual procedures followed.

APPLICATION

Applications for admission should be obtained in individual departments. Applicants (with some exceptions) who are **not** McGill graduates are required to ask two instructors familiar with their work to send letters of recommendation. All applicants must themselves send, or ask the appropriate university authorities to send, two certified copies of their complete university-level academic record to date. For McGill graduates the appropriate authority is the Registrar. Letters of recommendation and official transcripts should be sent **directly** to the department concerned.

Note: A fee of $15.00 in Canadian funds **must** accompany each application from a graduate of a university other than McGill, otherwise **it cannot be considered.** This sum must be in negotiable form, such as a bank draft or money order **(but not in cash)**, at the current rate of exchange, and will not be refunded.

It is desirable to submit a list of the titles of courses taken in the major subject, since transcripts often give code numbers only. Transcripts written in a language other than English or French should be accompanied by a certified translation. An explanation of the grading system used by the applicant's University is helpful. The applicant should also indicate the branch of the major subject in which further study is desired.

Completed applications, with supporting documents, should reach departmental offices on or before July 2. (N.B. Since several departments set much earlier deadlines applicants should contact the department concerned. Foreign students are advised to apply well in advance of the deadlines as immigration procedures may be lengthy.) Applications received after the prescribed dates may not be considered unless the concession is recommended by the Department concerned. Candidates will be notified of acceptance or refusal as quickly as possible.

The programs leading to master's degrees in Education normally begin with a Summer Session so that there are different dates for application and registration in this case. Candidates for higher degrees in Education should consult that Faculty beforehand as to application deadlines, date of commencement of courses and other details.

REGISTRATION
Fall and Winter

Registration for both Fall and Winter terms takes place in the individual departments or schools. Students should contact their departments in early September for the exact dates of their registration. **Foreign students only** pick up their registration packages at the Graduate Faculty Records and Registration Office in order to complete compulsory medical insurance forms. For exact dates and place of foreign student registration, students should contact their departments or Graduate Faculty in early September.

Course selection is made after consultation with the student's research supervisor or program director. Courses for the coming session are entered on the registration form which must then be signed by the student, the supervisor (or program director) and the Chairman of the department. Full instructions concerning registration will be supplied to each department at the time of registration.

Completed registration forms are scrutinised by the Graduate Faculty Records Office and acceptance into the program for that session is only official when the Associate Dean's approval has been given. In the meantime, students may attend lectures. Once the registration has been approved, the student must obtain a validated identity card at a time and place determined by the Registrar's Office.

Programs generally start in September although it may be possible for new students to

start certain programs in January or in May with approval of the Department concerned. Students should be aware that penalties are assessed for registering late (explained under Fees below).

All students must register annually up to the term in which they expect to graduate. This includes students who are not residing in the Montreal area.

THE SUMMER TERM FOR MASTER'S DEGREE STUDENTS

Masters students ONLY have the option of registering for a Summer term. This option is only offered in certain programs and students must consult their departments as to its availability. Those intending to register for a Summer term must consult their supervisors early in the Spring in order to establish a mutually satisfactory schedule of work.

Registration takes place in late Spring and completed registration forms must reach the Graduate Faculty Records Office before May 14. Students are warned that the necessary consultations in the department may take several days and there are penalties for late registration.

In order for a Summer term to count as part of the residence requirement it must represent a period of approved study of at least 12 weeks any time between 1 May and 31 August. Courses taken during the Summer Session may contribute to the work load of the Summer term. However, it is expected that most students will devote the Summer to research and will complete a schedule of independent study equivalent to the work of a Fall or Winter term.

Students who, at the end of the Winter term are continuing in their programs, but who do not register for a Summer term, retain all academic rights and privileges during that period.

Registration at the Centre for Continuing Education

Students registered in the Graduate Faculty who are taking evening courses for credit must also register with the Centre for Continuing Education at the appropriate time. If such courses are required as part of the degree program their cost will be included in the regular tuition fee for the degree. Authorization forms, available at the Graduate Faculty Office, must be completed **before** registering at the Centre. The Graduate Faculty reserves the right to place limitations on the number of Continuing Education courses taken for any one program.

Procedures for Ad Hoc Programs

Before the Executive Committee of the Faculty will authorize the acceptance of a student into an *ad hoc* program, it must receive a favourable report from a committee constituted to examine the program in question. Candidates, through the Supervisor designated by the department most closely related to their research field, must submit a research proposal and an outline of the course work needed to prepare them for a Comprehensive Examination in the relevant field.

Once the request has been approved, the candidate may register following all the regular procedures. It is customary for *ad hoc* Ph.D. or Master's degree candidates to be attached for administrative purposes to a department, but they are under the direct supervision of the Faculty of Graduate Studies and Research which receives annual reports from the Candidates' Supervisory Committees. Each year, a progress report must be submitted to Graduate Faculty Records Office for an ad hoc student **before** the student is permitted to re-register.

Time Limitations

For students who commenced Master's degree programs during or after the 1974-75 session, the following regulation applies:

Candidates for Master's degrees must complete the degree **within four years of initial registration.** If the degree is pursued on a less than full-time basis it must be completed within five years of initial registration. Thereafter, students may register for **one more year only** provided the Department concerned so recommends to the Faculty, in writing, giving reasons and suggesting the imposition of such conditions as may seem desirable. After this extension no further registration will be permitted and the student must withdraw from the University.

In exceptional cases, a student who wishes to submit a thesis, or to complete outstanding degree requirements, after this withdrawal may do so only on the recommendation of the Department concerned. A fee of $100 will be charged for re-registration in addition to any other fees required.

For **all** Doctoral candidates and for those students who first registered for Master's programs before the 1974-75 session the following regulation applies:

By annual registration, as above, candidates may maintain their connection with the University **for five years** after completing their residence requirements; thereafter, they may re-register only if the department concerned so recommends, in writing, suggesting the imposition of such conditions as may seem desirable.

The object of these regulations is to encourage candidates to complete their theses and qualify for their degrees without undue delay.

Withdrawal From a Degree Program

Candidates whose work is considered by the Department to be unsatisfactory may be asked to withdraw.

Any student who decides to withdraw must complete a Withdrawal Form available from the Faculty Office. Fees will then the refunded according to the conditions outlined in the Fees Section of the Announcement.

Reinstatement

Candidates who have severed their connection with the University can be reinstated only (1) if the department concerned so recommends, in writing, suggesting the imposition of such conditions as seem desirable, and (2) after paying a fee of $40 for each academic year during which they were not registered (up to a maximum of $100). This readmission fee is in addition to the fees due for the academic year into which the student has been readmitted.

Non-Resident Status

1. Departments, with the approval of the Executive Committee, may permit or require candidates to spend one session at another institution; it is understood that this session must be one of full-time work, and that the institution selected must be able to provide expert supervision and facilities for research appropriate to the candidate, in the field selected.

Permission to spend a required year of residence at another university must be obtained **before** the beginning of the session in which the student will be absent. A program of the work projected and particulars of the institution selected should be sent, accompanied by a letter from the Chairman of the Department, to the Associate Dean of the Faculty who will forward the request to the Executive Committee for approval. Permission is generally only granted to students who have already completed one full session at McGill.

The student will be required to register and pay the normal full time McGill tuition fee less any tuition fee payable to the host institution (up to a maximum of $530). Student services fees are not levied and the I.D. card is not validated.

2. Students who wish to take a leave of absence from the University for one year before returning to complete their residence requirements should first obtain permission to do so both from their departments and the Associate Dean.

The student **must register as a Non-Resident student,** and pay the non-resident fee. Student services fees are not levied and the I.D. card is not validated.

Registration for Two Degree Programs Concurrently

No student may be registered in two degree programs or in two departments or faculties concurrently without special permission granted by the Faculty. Students are advised that permission is never granted to attempt two **full time** programs concurrently. Letters of recommendation, including details of the proportions of time that the student intends to allot to each program, must be received from the Chairman of each department concerned. Each year, a progress report must be submitted from the two departments concerned to the Graduate Faculty Records Office before a student in this category will be permitted to re-register.

GRADUATION AND CONVOCATION

Graduate Diplomas, Master's degrees and Doctoral degrees are granted by Senate to those students recommended for graduation by the Faculty of Graduate Studies and Research. Names of candidates who have completed all their program requirements are presented to Senate on three occasions during the year: January, May and October. Transcripts of successful candidates will indicate the date on which the degree or diploma was granted and this is the official date of graduation. Convocation ceremonies are held in June and November at which time the degree or diploma is conferred by the Chancellor of the University.

CLASSES OF STUDENTS

Regular Students

"Regular Students" are those students who are proceeding to a degree and who in any given session are attending classes or receiving regular guidance or consultation relevant to their programs from any member of the staff, who wish to write examinations or who are making use of the university's libraries or laboratories or other facilities. "Regular Students" usually register on a full-time basis (see exceptions below).

Half-Time Students

In some departments, "Regular Students" are permitted to proceed towards a degree on a half-time basis, ie. students are permitted to register half-time instead of full-time during the 'residence' period.

It is expected that "Half-time Students" will spend 50% of their time in the department participating in course work, seminars, discussions,

etc., with the staff and the full-time "Regular students."

"Half-time Students" are reminded that they must complete the degree within the time limitations imposed by the Faculty, and that if they choose to be half-time they must, a) be so for an even number of terms (ie. two half-time terms = one full-time term) and b) fulfill the minimum residence requirement in their program.

Part-Time Students

Certain degree programs are designated as Part-time and "Regular Students" may proceed towards the degree at their own pace. "Part-time Students" may enrol in day time courses in the Fall, Winter and Summer sessions and in some Continuing Education courses where indicated by the Department.

"Part-time Students" are reminded that they must complete the degree within the time limitations imposed by the Faculty.

Additional Sessions Students

Candidates who have completed their residence requirements should register in Additional Session according to the regular registration procedures. It is expected that at this stage all the course work and Comprehensive Examinations will have been completed and the student will be engaged in thesis preparation.

Qualifying Students

Students admitted to a *"Qualifying Program"* are known as "Qualifying Students". They are registered in the Graduate Faculty but have not yet been admitted to a degree program. These students take a full load primarily of undergraduate courses as indicated by the Department. A *"Qualifying Program"* cannot be taken on a half-time or part-time basis.

Special Students

Students who meet the minimum entrance Requirements of the Faculty and wish to take **one, or at most two courses per term** in the Graduate Faculty without intention of proceeding to a degree or diploma awarded by this Faculty are termed "Special Students" of the Graduate Faculty.

In the same category are included students carrying on research in McGill laboratories, without intention of proceeding to a degree. If graduate "Special Students" subsequently become candidates for higher degrees, they may receive academic credit for relevant graduate courses taken as special students. Students who wish to take further undergraduate courses only should register as "Special Students" in the undergraduate Faculty concerned, even if they already hold degrees.

Visiting Students

"Visiting students" are those students who are registered in a degree program at another university and who have obtained written permission from both universities to take a course(s) for credit towards that degree program. Students studying in the Province of Québec who are in this category are eligible for a transfer of fees as well as a transfer of credit if the required permission is obtained on special forms. These forms are available from the Graduate Faculty Records Office or the Registrar's Office.

Medical Interns

Interns, residents and fellows on the staffs of teaching hospitals associated with the University, and candidates for diplomas in anaesthesia and psychiatry, are considered graduate students.

Full-Time McGill Staff

Members of the teaching staff of the University up to and including the rank of lecturer may enroll as candidates for a degree or diploma. If their teaching duties are designated as full-time, they may only enroll as half-time students.

Professorial members of the academic staff may not enroll in graduate degree and diploma programs. This rule shall apply also to any persons who have been on the professorial staff within the previous twelve months, unless they resign completely from positions at McGill.

In certain cases professorial members may apply to enter graduate programs in *academic units other than their own.* Before acceptance, such applications will be studied by a standing committee of the Faculty which must report whether and how conflict-of-interest situations can be avoided.

Should persons registered in this Faculty be promoted to professorial rank, they may no longer remain graduate students.

A reduction in fees is granted to full-time lecturers enrolled in degree or diploma programs and forms are available for this purpose at the Graduate Faculty Office. Normal registration procedures must be followed each year.

Similar regulations also apply to non-academic staff and these may be obtained from the Office of Human Resources.

FEES

The University reserves the right to change any fee without notice. No diploma or transcript will be released until all fees are paid in full.

Tuition Fees

Foreign* students are required to pay higher tuition fees than Canadian students or permanent residents (ie. landed immigrants). Current foreign tuition fees are shown in parentheses in this section of the Announcement. The Québec Government has announced that the foreign tuition fees will increase annually in proportion to the increase in education costs. These fees are in effect as of the **Summer** 1982 **Term**. Exemption from Foreign Student Fees may be claimed by students in certain categories. A list of these categories and required application forms are available at the Registrar's Office.

Full-time. The tuition fee for one full-time term of resident study in a degree program is $285 ($2175). (Only full-time students in Education, Library Science and in the S.T.M. program in Religious Studies pay fees on a per course basis.)

Half-time. The tuition fee for one term of half-time study in a degree program is $142.50 ($1088).

Part-time. Students registered in degree programs specifically designated "part-time" by the Faculty and who are taking less than a full course load, may be permitted to pay tuition fees on a per course basis. The per course fee varies according to each course. A full course is **approximately** $114 ($870) and a half course is **approximately** $57 ($435).

Additional session. Candidates requiring additional terms beyond the required period of residence must pay a tuition fee of $20 ($175) per term.

Non-resident. The registration fee is $20 ($175) per term (students classified under non-resident status #2 above only.)

Special. A "Special Student" is not enrolled for any degree program and tuition fees are assessed on a per course basis. A full course is **approximately** $114 ($870) and a half course is **approximately** $57 ($435) though the fees vary according to each course. A special student carrying on research in McGill laboratories, but not taking courses, will normally pay the cost of one full course per session, approximately $114 ($870).

* Foreign students who began their program before September 1981 pay an interim foreign tuition fee which will also increase each year, in proportion to the increase in education costs. Students in this category will be informed of the revised interim foreign tuition fee as soon as it is available, and at the time of registration.

Tuition Fee for a Qualifying Program

The tuition fee in the *"Qualifying Program"* is $285 ($2175) per term. A *"Qualifying Program"* may consist of up to two terms of full-time studies.

Tuition Fee for a Master's Degree

The minimum tuition fee for a Master's degree is $855 ($6225) i.e. $285 ($2175) for each of the required terms of residence. In those Masters programs which have residence requirements spanning more than 3 terms, the minimum tuition fee will be commensurately higher (see below). **This minimum must have been paid by the time of graduation in addition to any fees incurred for Qualifying terms, Additional terms or Non-resident years.**

A candidate who has been awarded a graduate diploma in the same subject may, in some departments, be given advanced standing in the Master's program. The minimum tuition fee in such a case will be $570 ($4350).

The following Master's programs have a **minimum** tuition fee higher than $855 ($6225):

M.Eng. (Option B in Mining),	$1140	($8700)
M.L.S.	$1026	($7830)
M.Mus. (Sound Recording,)	$1140	($8700)
M.Sc. (Oral Surgery),	$1425	($10,875)
M.Sc.A. Geological Science		
Health Sciences (Rehabilitation),	$1140	($8700)
Human Communication Disorders		
S.T.M.	$912	($6960)
M.U.P.	$1140	($8700)

Tuition Fee for a Doctoral Degree

The minimum tuition fee for a Doctoral degree is $1,710 ($13,050). **This minimum must have been paid by the time of graduation in addition to any fees incurred for Additional Sessions or Non-resident years.**

There is only one exception to this regulation:
A candidate who has obtained a Master's degree **in the same subject** may be admitted to the second year of the Doctoral program. The minimum tuition fee in such a case is $1,140 ($8700).

Candidates who complete all the components of their degree in a shorter period of time than is specified for the residence period may apply to the Associate Dean for permission to graduate early must still pay the minimum tuition fee.

Tuition Fee for a Graduate Diploma

The minimum fee for a graduate diploma is $285 ($2175) per term, ie. $570 ($4350) per academic year.

Fees for Staff Candidates

Full-time lecturers who qualify for the reduced fees pay $25 per year.

A staff candidate on deposition of a thesis is required to pay a thesis examination fee: $75.00 for a Master's thesis and $100.00 for a Doctoral thesis.

Students' Societies and Student Services Fees

All students, with the exception of those classed as "non-resident" students, are entitled to a valid identity card and **must pay fees for students' societies.** In addition, **all students** except those classed as "Additional Session" students (McGill Campus) or "Non-Resident" students **must pay fees for student services.** These student fees are separate from any tuition or registration fee assessed and are not included in the calculation of the minimum tuition fee for the degree.

The university, on behalf of the Student's Societies and Student Services, collects the following fees each term:

Full-Time and Half-Time Students

Students' Society	$11.75
Post-Graduate Students' Society	$10.00
Student Services	
Full-Time	$47.50
Half-Time	$23.75*

*This includes all Student Services except Athletics. If you wish to have athletics privileges please obtain a special sticker for your I.D. card from the Dean of Students office at 3637 Peel St. or the Department of Athletics at 475 Pine Ave W.. The cost is $23.75 per term.

Part-Time, Special and Visiting Students

Students' Society	$ 3.85
Post-Graduate Students' Society	$10.00
Student Services	$ 1.25 per credit

Additional Session

Students' Society	$ 3.85
Post-Graduate Students' Society	$ 5.00

Additional Session students who wish to use any of the Student Services should obtain a special sticker for their identity card from the Dean of Students office at 3637 Peel Street, or from the Department of Athletics at 475 Pine Avenue West. The cost is $47.50 per term.

Macdonald Campus Student Society fees are $24.50 per term with Additional Session students paying $12.50 per term. The Student Services fees are $47.50 per term with Half-Time and Additional Session students required to pay $23.75 per term.

Any questions concerning the above student fees should be directed to the Dean of Students.

Upon payment of the fees required for Student Services and Student Societies, graduate students are entitled to the following:

a) Medical examination, daily consultation service and hospital treatment.

b) Access to the gymnasium, swimming pool, and tennis courts.

c) Opportunities for exercise with various athletic clubs and eligibility for intercollegiate and other teams.

d) Admission (by identity card) to the students' section at all intercollegiate games played at McGill.

e) At Macdonald Campus slightly different rules apply. Here, graduate students are entitled to medical attendance, major operations excepted, on the same basis as other students. Graduate students at Macdonald Campus are entitled to participate in the activities of the various organizations under the Students' Council and to have one representative on the Students' Council.

Summary of Student Tuition, Societies and Services Fees*

DEGREE PROGRAM	FEE	
Diploma		
Full-time (per term)	$354.25	($2244.25)**
Qualifying (per term)	$354.25	($2244.25)**
Master's		
Residence period		
Full-time (per term)	$354.25	($2244.25)**
Half-time (per term)	$188.00	($1133.50)**
Additional Session (per term)	$ 28.85	($ 183.85)**

Doctoral

Years 1, 2 & 3		
Full-time (per term)	$354.25	($2244.25)**
Half-time (per term)	$188.00	($1133.50)**
Additional Session (per term)	$ 28.85	($183.85)**

*Students paying on a per term basis only.

**Foreign students who began their program before September 1981 pay an interim foreign tuition fee (as explained above).

Application for Graduation Fee

A $20 fee, payable at the Registrar's Office, F. Cyril James Building, will be charged to all students when they graduate.

Special Fees

Certain departments impose special fees for course material, professional insurance, etc.

Full information concerning special fees should be obtained from the department concerned.

Re-Submission Fee

A candidate whose thesis is judged unsatisfactory by the examiners may be permitted by the Faculty to present a revised thesis, for a subsequent Convocation, upon payment of the following re-submission fees:

Master's degree $75
Doctoral degree $100

If a new term of study is entered the student will be required to pay the normal fees for that term in addition to the re-submission fees.

Supplemental Examination Fee

Fees for supplemental examinations, granted under special circumstances by permission of the Dean on the recommendation of the department, are payable in advance at $10 per paper ($15 for examinations written at the Centre for Continuing Education).

Payment

Students are required to pay their fees for the term in which they are registered either by mail or in person at the Cashier's Office. F. Cyril James Building, within 10 days of registration. Winter term fees are due by January 14 (Macdonald Campus students must pay their fees at Macdonald Campus). Returning students owing fees will not be permitted to re-register until their fees are paid or a satisfactory arrangement is made with the Cashier's Office. All fees are payable in Canadian funds.

Students who register after the prescribed registration periods will be assessed a late registration fee of $50*.

A late payment fee is assessed as follows:
(Up to September 30), (Up to January 31) . . . $10.00
(After September 30), (After January 31) . . . $25.00

*Students accepted late into Graduate Faculty programs or Foreign students whose arrival at McGill is delayed because of immigration procedures may be exempted from the above upon presentation of a written explanation from the department.

Change of Course & Withdrawal Policy

Students who wish to add or drop courses from their programs after initial registration should do so by completing a change of course registration form*. Students paying tuition on a per course basis only, will receive appropriate refunds if they drop courses within the time limits described below.

Students who wish to withdraw from the University must complete a **withdrawal form** and submit it to the Records Office of the Faculty of Graduate Studies and Research. The effective date for refunds will be the date on which the official withdrawal form is received. The responsibility for initiating withdrawals rests solely with the student.

The dates for refunds for students paying **per course** or **withdrawing from the University** for 1981-82 are as follows.

Fall Term	**Refunds**
Up to two weeks **after the end of the final course change period in any faculty or September 30, whichever is earlier**	100% **(Minimum charge of $50 in the case of complete withdrawal)**
Up to and including October 15	50%
After October 15	No refund
Winter Term	
Up to two weeks **after the end of the final course change period in any faculty or January 31, whichever is earlier**	100% **(Minimum charge of $50.00 in the case of complete withdrawal)**

Up to and including February 15	50%
After February 15	No refund

No refund of the Student's Societies and Student Services fees will be made after September 30 for the Fall Term or January 31 for the Winter Term.

*Course change forms for withdrawing or adding courses are available in Departmental Offices or in the Records Office of the Faculty of Graduate Studies and Research. Please note that course changes must be made with the approval of the Departmental Chairman or his Deputy.

STUDENT SERVICES AND ACCOMMODATION

Residences.

There is a limited number of places for single graduate students available in the University Residences. Information and Application Forms can be obtained by writing to:

The Residence Secretary
3935 University Street
Montreal, Québec
H3A 2B4

Single/Married Graduate Students

The University maintains a limited number of apartments available for rent by single and married graduate students. Information and applications can be obtained by writing to:

McGill Real Estate Department
3575 University Street, Apt. 202
Montreal, Québec
H3A 2B1

Off-Campus

McGill maintains an Off-Campus Housing Service with updated computer listings of all types of off-campus accommodation. Information can be obtained by writing to:

McGill Off-Campus Housing Service
Powell Student Services Building
3637 Peel Street
Montreal, Québec
H3A 1X1

Full information concerning student services, extra-curricular activities, athletics and residential facilities is contained in the *General Announcement* available from the Registrar's office.

FELLOWSHIPS, SCHOLARSHIPS, AND PRIZES

Fellowships, scholarships and prizes are awarded competitively on the basis of academic merit. Details of the fellowships and other awards available to postgraduate students are found in *Postgraduate Fellowships, Bursaries, Loans and Prizes*, a booklet which can be obtained from the Registrar's Office or from the Graduate Faculty Fellowships Office. The booklet also describes exchange programs which provide money for students who want to study abroad.

Students who apply to the Graduate Faculty for a fellowship administered by the Graduate Faculty Fellowships Office are considered for every fellowship for which they may be eligible. These range up to a maximum value of $8,500.

Applications can be obtained from your department or

Graduate Faculty Fellowships Office
Room 311, Dawson Hall
McGill University
853 Sherbrooke Street, West
Montreal, PQ, Canada H3A 2T6

The completed application must be received in your department by **15 February** before the Fall term in which the student hopes to receive a fellowship. Candidates will be notified during the month of May.

Some awards are administered by McGill departments or institutes. They are listed in the fellowships booklet described above. Values, application procedures and due dates vary widely, and are separately described for each award.

A third type of award is offered by private institutions and public agencies. The Government of Canada, through the Social sciences and Humanities Research Council, the Natural Sciences and Engineering Research Council and the Medical Research Council, offers fellowships which range in value from $5,520 to $11,200. These programs require special application forms and procedures which are described in the fellowships booklet. Application dates for these fellowships are very early in the Fall term of the year preceding the granting of the fellowship. The Government of Québec offers postgraduate fellowships to residents of Québec; they range in value from $5,000 to $10,000. Applications are due January 15 in Québec but there is an earlier departmental deadline. Other similar programs are described in the Postgraduate Fellowships booklet.

Canadian citizens or permanent residents who have been residing in a province for more than a year are eligible to apply for loans from that province. These loans are awarded on the basis of need and do not have to be repaid while the recipient is a full-time student in good standing. Some provinces also award non-repayable bursaries on the basis of financial need. The addresses of the provincial loan agencies are listed in the Postgraduate Fellowships booklet.

Foreign students admitted to McGill should have financial support before coming to Montreal. Non-Canadians on student visas cannot work in Canada, and there are no fellowships or

loans available after arrival. The chances of winning a fellowship or obtaining any new support while here are almost nil.

TEACHING ASSISTANTSHIPS AND DEMONSTRATORSHIPS

Many departments require the services of some graduate students as teaching assistants or demonstrators. These graduate students may be employed up to 12 hours weekly during the session without losing their full time status.

In some departments Research Assistantships provided through special research funds are also available. In most, though not all cases, the research in question can be used by the students for their thesis.

It should be noted that some departments *require* a graduate student to include a period of research or teaching assistantship as an integral part of the degree program.

In all cases the appointment is recommended by the Chairman of the department concerned on the basis of the documents supplied along with the application for admission.

It is not the general policy of the University to waive tuition or other fees for Demonstrators, Assistants, or Fellows, though in some cases provision is made for a basic stipend plus the amount of the fees, while certain graduate scholarships cover the cost of fees only. Generally speaking, assistantships, demonstratorships and fellowships provide subsistence throughout the academic session only, while research assistantships may run throughout the calendar year (though some are available in the summer months only); in no case are the funds adequate to defray the cost of coming from or returning to a distant country.

Teaching Skills

A program of activities specifically designed to enable graduate students to improve their teaching abilities is available in many departments. In addition, the Centre for Learning and Development (telephone 392-8320) offers a modularized course 414-099 "Teaching and Learning in Higher Education".

GENERAL INFORMATION FOR NON-CANADIAN STUDENTS

Non-Canadian students and students who are not permanent residents **must first** obtain a student visa from a Canadian Embassy or Consulate in their area. While it is not possible to obtain a student visa until both a letter of acceptance from the University and a certificate of acceptance from the Québec Government have been issued, students are advised to begin the procedures necessary to secure assurance of admission to Canada and to complete the necessary medical papers for the Canadian Immigration authorities as soon as possible after submitting an application for admission to the University. If offered admission, **BOTH** a copy of the letter of acceptance from the University and the certificate of acceptance from the Québec Government must be submitted to the Immigration Authorities to complete the processing of the visa application. Student visas can be renewed annually in Canada subsequent to the students' registration.

A pamphlet describing immigration regulations in detail and containing notes and guidance to students from other countries is available from Canadian immigration offices, Canadian Embassies and British Consular offices, or from the Immigration Branch, Department of Citizenship and Immigration, Ottawa, Canada. Local immigration officers will be ready to give advice and help.

There are several other useful booklets available which explain the various immigration procedures and which supply valuable information about studying in Canada and more particularly at McGill University.

The handbook entitled **University Study in Canada** can be obtained from Canadian Embassies, Consulates, and the office of High Commissioners and Trade Commissioners. A leaflet entitled **Notes for Foreign Students Who Wish to Attend a Canadian University** may be obtained from the Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario K1P 5N1.

Compulsory Health Insurance for Non-Canadian Students

In the Province of Québec, holders of student visas cannot establish legal residence in the Province and therefore do not qualify for inclusion in the Québec Health Insurance Plan. As a result, such students who need hospitalization may find themselves facing very heavy financial charges. All full-time non-Canadian students and students who are not permanent residents **must** enrol in the compulsory McGill Non-Canadian Student Health and Accident Insurance Plan at the time of registration. Full details of the Plan are available from the Health Service or the Liaison Officer to the Dean of Students.

Post-doctoral Fellows registered with the University also come under the same insurance provisions.

SUMMER SESSION

Graduate courses are available in some subject areas during the summer and the *Summer Session Announcement* should be consulted for a complete listing of undergraduate and graduate level courses.

Students doing graduate work in Education are strongly advised to enroll in the Summer Session and many programs can only be completed by participation in Summer Session studies.

Registration for students in the Faculty of Graduate Studies and Research takes place through the Graduate Faculty Office. It is the responsibility of the student to obtain a Registration Form from the above office, have the completed form authorized by the Department and return it to the Graduate Faculty Office.

If the Summer Session courses are REQUIRED as part of the degree program and the student has already paid full-time tuition fees ($285 per term – flat rate) no further tuition fees are levied for these Summer Session courses. Registration for Summer Session should not be confused with registration for a Summer Term which has been discussed earlier in this Announcement.

Part-time students (or students paying on a per course basis) must pay the full tuition fee for Summer Session courses at the time of registration (a bank draft, money order, or **certified** cheque, is required).

Many Summer Session courses have limited enrollment and students are advised to reserve a place in such courses as early as possible. Graduate students intending to register for restricted undergraduate courses MUST come IN PERSON to the Graduate Faculty Office where arrangements will be made with the Summer Session Office to reserve a place in the class.

The Summer Session is divided into two parts and each part is subdivided into two "terms". Lectures vary in duration (4 weeks, 8 weeks, etc.), but they begin on the following dates:

Part I		
(C courses)	1st Term	May 3, 1982
(L courses)	2nd Term	June 1, 1982
Part II		
(T courses)	1st Term	July 5, 1982
(T courses)	2nd Term	August 2, 1982

Please consult the Summer Session booklet for specific information on course dates and times.

FRENCH SUMMER SCHOOL

The French Summer School has a residential program offering cultural activities, undergraduate courses and GRADUATE LEVEL courses leading to A MASTER'S DEGREE, with or without thesis.

The same admission standards are required for acceptance into the M.A. without thesis (French Summer School) as for the M.A. with thesis in the Departmentof French Language and Literature. A Qualifying Session may be necessary before acceptance into the Master's program. All the regulations of the Graduate Faculty apply to candidates for the M.A. (French Summer School).

Further details may be obtained from the *French Summer School Announcement* available from:

Georges-Paul Collet
Director of the French Summer School
Peterson Hall
McGill University
3460 McTavish Street
Montreal, PQ, H3A 1X9
Tel: 392-4678/9

REGULATIONS CONCERNING THESES

1. Dates of Deposition

Completed theses must be deposited at the Thesis Office. This can be done at any time (subject to regulations 4 and 5 referred to in "Guidelines Concerning Thesis Preparation" obtainable from the Thesis Office). Theses must be deposited before mid-November in order to be approved by Senate winter granting of degrees, mid-March for the subsequent Spring convocation and mid-August for the Fall convocation. For the exact dates, the "Calendar of Dates" at the beginning of this booklet should be consulted. The deadline for doctoral theses is one week earlier than that for master's theses.

Due to unforeseen delays in the mails or with Examiners, an absolute guarantee cannot be given that all procedures will be complete in time for the award dates, even when the deadlines are met.

2. Procedures After Deposition

After a thesis has been handed in, it is submitted to the Examiners. When all Examiners' reports are received, the results will be communicated to the Candidate. In the case of doctoral programs, the final oral examination will be held only if the Examiners have reported favourably.

After all the requirements have been met, and if the next convocation is some time away, the Dean will issue (upon request to the Thesis Office) a certificate stating that the Candidate will be recommended to Faculty Council to be placed on the next degree list. This certification is available for both doctoral and master's Candidates.

3. Disposition of Examiners' Reports

Guidelines for the disposition of Examiners' reports and the organization and conduct of Oral Examinations may be obtained from the Thesis Office. At any stage during the procedures, Candidates have the right of appeal to the Dean or Associate Dean.

The procedures are similar but simpler for master's thesis in as much as there is no final Oral Examination.

4. Registration and Fees

A thesis can only be submitted by a candidate, i.e., a student registered for the degree in question. In order to remain a candidate, a student must remain registered. If all requirements are met, including deposition of the thesis on or before September 30 (or February 1), no fee will be charged for that term. Otherwise, either a $40.00 ($100) registration or the appropriate tuition fee will be assessed. Candidates should note also that a fee of $20.00 for graduation will be charged. (Full information on fees is given above).

5. Notice of Deposition of Thesis

Nomination of Examiners must be filed in the Thesis Office by 1 June (for Fall Convocation), by 1 February (for Spring Convocation), or by mid-August for Candidates wishing to be considered for the winter degree list. The appointment of the Examiners and communication with them is the duty and the privelege of the Dean. Guidelines respecting Examiners are available from the Thesis Office.

Formal notice of the title of a thesis to be deposited must be filed in the Thesis Office at least one month before the nomination of examiners. This notice should be the result of consultation between the Candidate, the Thesis Supervisor and the Chairman. All three share the responsibility for the timely completion of this important formality.

No subsequent change of title, whether originated by the Candidate or any other source, will be accepted unless the change is officially requested by the Department, at least one month before the thesis is deposited.

6. Originality and Historical Introduction

a) Candidates should clearly indicate in the preface, or by a separate statement at the beginning or end of the thesis, what elements in the thesis should be considered contributions to original knowledge. This requirement is mandatory for a doctoral thesis and is recommended in other cases. Theses should also contain an appropriate historical statement of previous relevant work or investigation: "appropriate" does *not* necessarily mean long or exhaustive.

b) The candidate is required to declare, *generally* in the preface, and *specifically* in the text, the extent to which assistance has been given by members of the staff, fellow-students, technicians, or others, in the collection of the material, the design and construction of apparatus, the performance of experiments, and the preparation of the thesis in general. This regulation does not apply to the normal supervision and advice given by the thesis supervisor.

c) A thesis for the Master's degree, while not necessarily requiring an exhaustive review of work in the particular field of study, or a great deal of original scholarship, must show familiarity with previous work in the field and must demonstrate the ability to carry out research and to organize results, all of which must be presented in good literary style. The thesis normally consists of 80 to 100 typescript pages.

7. Manuscripts and Authorship

The Candidate has the option, subject to the approval of the Department, of including as part of the thesis the text of an original paper, or papers, suitable for submission to learned journals for publication. In this case the thesis must still conform to all other requirements explained in this document, and additional material (e.g. experimental data, details of equipment and experimental design) may need to be provided. In any case, an abstract, a full introduction and a conclusion must be included, and where more than one manuscript appears, connecting texts and common abstract introduction and conclusions are required. A mere collection of manuscripts is not acceptable; nor can reprints of published papers be accepted.

While the inclusion of manuscripts co-authored by the Candidate and others is not prohibited for a test period, the Candidate is warned to make an explicit statement on who contributed to such work and to what extent, and Supervisors and others will have to bear witness to the accuracy of such claims before the Oral Committee. It should also be noted that the task of the External Examiner is much more difficult in such cases.

The text of this section should be cited in full in the introduction of any thesis to which it applies.

Candidates wishing to avail themselves of the options described in this section 7 should notify the Thesis Office of their intentions at least two months before the date of submission.

8. *Typographical and other Specifications*

Approved theses for higher degrees are eventually bound and placed in the McLennan Library, and are made available to the National Library of Canada. Candidates are therefore advised that the Faculty of Graduate Studies and Research requires theses to be prepared in accordance with the following specifications. **Theses not so prepared will not be accepted, unless the Executive Committee of Council has given its agreement in advance.**

a) Three copies of a master's thesis and seven copies of a doctoral thesis must be deposited; in each instance two copies will be retained by the University. One of the copies will be retained in the University Library. One copy of a master's thesis and five of a doctoral thesis will be returned to the Candidate. Departments that would like copies for other collections should arrange for these with the Candidate. In planning for extra copies, Supervisors and Candidates should consider if – as a matter of courtesy or respect – copies of accepted theses should be sent to the suppliers of the data used, or to people or institutions analyzed.

b) The thesis must be typed on 21.5 x 28 cm paper with double, or one and one-half spacing, with lines about 16 cm wide, or in two single-spaced, parallel columns. Offset or xerographic reproduction of all copies is permissible, but especially copies 1 and 2 must be of high quality. Coated paper will not be accepted.

Diagrams should be drawn with India ink on rag, paper or reproduced by photographic, offset or xerographic processes. Diagrams, numerical or summary tables, and parts of the Table of Contents may appear on left-hand pages (on the back of other material) where this aids in the layout and the general readability of the text. These left-hand pages should not be numbered, but should be identified as being opposite a given page.

c) The left-hand margin must have a uniform width of not less than 4 cm; this rule also applies to diagrams, etc. The right-hand margin need not be rectified, but it should be well defined at approximately 1.5 cm width. Drawings, maps, plates, etc., if larger than the prescribed page, may be folded so that the flap is not larger than 18 x 27 cm. Larger drawings, etc., must be folded down to not more than 18 x 25 cm, so that they may be placed in pockets in the binding.

d) Footnotes may be placed either at the bottom of each page, at the end of each chapter or altogether after the last chapter.

e) Each copy of the thesis should be assembled in approved binders. The pages should be perforated near the left-hand edge with punch holes approximately 20 cm between centres, and should then be assembled and firmly bound, by means of the holes, between stiff covers for protection. The "Acco-press" binders which fit 21.5 x 28 cm paper are recommended. Ring or spring binders will not be accepted. On the outside of each binder must be written clearly the name of the Candidate, full title of thesis, department, degree sought, date and copy number. The Candidate should also affix to the spine of each copy a label showing clearly his/her surname and the degree sought, together with the copy number.

f) The thesis must be free of typographical and other errors. If copies are deficient in these respects they will be returned for correction. If these corrections are numerous the granting of the degree may be delayed.

g) Every thesis should have an adequate Table of Contents and a thorough Bibliography of the subject. Immediately following the title page, there should be an abstract, giving a summary of the thesis. This should not exceed **150 words.** The rules above regarding format, margins, etc. should be observed with regard to the abstract. Every copy of the thesis must have an English and a French abstract. When the language of the thesis is neither English nor French, an English and a French version of the abstract is required as well as an abstract in the language of the thesis. It is understood that the Thesis Supervisor has approved the text of the abstract in both the English and French versions. Candidates are warned (and Supervisors are reminded) that abstracts must be concise, informative and grammatically correct: writing a good abstract, especially in a second language, is an important challenge not to be taken lightly.

h) Candidates are warned that the preparation of the typescript always takes longer than is expected and that time must be allowed for checking the typescript carefully before the thesis is deposited.

i) The use of SI units (international system of metric units) is mandatory. When for historical reasons, or reasons of clear reader preference, other units are used, the SI equivalent must be given in a footnote at the first opportunity.

9. Supplementary Documents

At the time of deposition of the thesis, the following additional documents must accompany the thesis:

a) Two completed waiver forms for the University Library, and one for the National Library. Blanks may be obtained from the Thesis Office.
b) A short title of the thesis (less than 56 characters including spaces), which will appear along the spine of bound copies, should be submitted on three separate sheets of paper.
c) For doctoral theses, the form required by Dissertation Abstracts (obtainable from the Thesis Office) together with a copy of the abstract in the language the thesis is written and a copy of the title page of the thesis.
d) Important Notice to Graduating Students – Green Form (Obtainable from the Thesis Office) to be signed by Thesis Supervisor and Chairman of Department.

NOTES:

1. The waiver forms of 9. a) enable the University to deposit accepted theses in the University Library and a microfilm copy in the National Library at Ottawa. Theses not accompanied by the waiver forms cannot be accepted. Under special circumstances the University agrees to delay the deposition of theses for strictly limited periods.
2. Abstracts are bound into volumes which are filed for reference in the McLennan Library and in the Thesis Office.

10. Resubmission

If a thesis is failed it cannot be submitted again in revised form without the permission of Faculty Council. A fee of $75.00 is required for the resubmission of a Master's thesis and $100.00 for a Doctoral thesis, fees which partially cover the costs to the University. More details about resubmission procedures are contained in the **Guidelines** (see section 2).

3 LIBRARIES

Duly registered graduate students have access to the McGill University Library system. This comprises twenty-seven libraries, grouped by subject into five administrative Area Libraries, with an overall collection of approximately two million volumes.

The main collection of the Humanities-Social Sciences Area is housed in the McLennan Library, which also has the McGill Union Catalogue of the holdings of all the system libraries, a large government documents collection and the rare books department. other associated libraries of this Area are the Blackader/Lauterman Library of Architecture and Fine Arts, the Education Library (including the Curriculum Lab and Physical Education collection), the Howard Ross Library of Management, and the Islamic Studies, Library Science, Marvin Duchow Music, Religious Studies and Social Work Libraries.

Constituting the Life Sciences Area are the Blacker/Wood Library of Zoology and Ornithology, the Botany/Genetics, Dentistry, Macdonald Campus (agricultural sciences), Medical and Nursing Libraries, as well as the Osler Library of the History of Medicine.

The Physical Sciences and Engineering Area Libraries include the Engineering, Physical Sciences, Mathematics and Northern Studies Libraries, as well as the new Map and Air Photo, Marine Sciences, Meteorology and Rutherford Physics Libraries.

The Law and Undergraduate Area Libraries constitute the last two administrative divisions.

Most of the libraries produce detailed guides to their services and hours, etc., and an overview may be obtained from the *Area Libraries Directory,* available on request from each library or the Office of the Director of Libraries on the main floor of the McLennan Library building.

There are, in addition, a number of affiliated collections in various specialized departments.

Students registered for Master's and Ph.D. programs may obtain borrowing privileges for all Québec university libraries upon presentation of their identification card when it clearly indicates their status, or upon presentation of a CREPUQ introduction card, available from the Office of the Director of Libraries. The CREPUQ card also grants borrowing privileges at most Ontario university libraries.

4 RESEARCH POLICY, PATENTS, FELLOWS, ASSOCIATES

RESEARCH POLICY STATEMENT

General

Research in the University is relevant for the general benefit of man, as well as for a host of specific purposes. We are convinced that research flourishes only in a climate of liberty. Since the conditions for good research in our many disciplines are quite different, we have eschewed detailed regulations or attempts to cover all eventualities with blanket rules. Instead,

individual investigators must to a large extent assume direct responsibility for the intellectual and ethical quality of their work.

The Vice-Principal (Research), acting on behalf of the Principal, has an overriding responsibility, but it is recognized that he is not in a position to examine applications, study progress reports, and monitor research activity, in sufficient detail to be able to detect any possible departure from acceptable standards in the work of our colleagues. Even if elaborate and expensive means could be found to enable administrative officers to exercise such detailed surveillance, it would be foolish to engage in such practice. In a community of responsible scholars, guidance is appropriate; censure may be appropriate after the event; but the detailed investigation of colleagues' intentions is not.

Much research, sponsored through contracts or otherwise, has some orientation to a mission, with the consequence that the sponsor may have priority interests in the result and may wish to impose restrictions either on the use of the data or the results, or both. Some of the restrictions asked for may be reasonable, but some are not.

It is the purpose of this document to establish some guidelines for all in the University, staff and students in the pursuit of their research. A particular purpose is to protect research workers against committing themselves to unreasonable restrictions and to other conditions which may run counter to our accepted notions of the integrity of university research.

A serious social responsibility rests on the individual members of the community who are best equipped through special knowledge to remain aware of the consequences or research activity, and the possibility of malign application must be balanced by them against potential benefits.

"Defence contracts"

The University does not allow its professors, students or facilities to be engaged in secret military research sponsored by civilian or military agencies. There is but one exception to this restriction. We are prepared, in principle, to consider applications for the prosecution of research concerned with the defence of Canada and sponsored by Canadian agencies. If such a project is brought forward, and when the Vice-Principal (Research) is satisfied that it is Canadian and defensive in character, he will refer it to the Executive Committee, and if the Executive Committee approves, the application will be allowed to stand. If the project is then initiated, the Vice-Principal and the Executive Committee will report its existence to Faculty Council, though restricted details will not be divulged at that time.

Official secrecy based on constitutional or public policy grounds

Certain kinds of research data in the custody of governments and other agencies are covered by restrictions to protect the privacy of individuals or business firms. These restrictions may make it necessary to limit the use or publication of data to comply withlaw or policy on confidential personal data. There may also be constitutional restrictions on the disclosure of findings,until they have been made public in the proper manner, through tabling in Parliament for example. Similarly, research done for commissions or committees of inquiry may be protected from premature disclosure.

If the restriction is not such as to prevent the eventual use of the material by students or staff researchers for thesis use or publication, these restrictions are not unreasonable, though the question of the time limits is subject to clearly defined university policy described below. If the research cannot be freely used by students, it is not, generally speaking, appropriate for thesis research.

We will not accept unqualified secrecy rules; nor will we accept requests for delays in publication in excess of one year, though the Executive Committee has the right to accede to requests of three years in exceptional cases.

Commercial Contracts

In some kinds of work, at least limited commercial security is necessary to protect commercial application by the sponsor. Since in many areas we should not turn down all involvements with commercial sponsors, careful distinctions become necessary. Those contracts in which all or a major portion of the activity is concerned with the application of available knowledge to the solution of a problem, fall under the guidelines of the next section. In those contracts which are predominantly concerned with fundamental research, we refuse contracts with unconditional secrecy clauses, but accept contracts where we obtain agreement regarding at least the following elements:

(a) the interests of students involved, especially with respect to the examination of their theses, must not be jeopardized;
(b) the investigators' rights to publish the non-commercial aspects of the work must not be restricted;
(c) where the commercial aspects of the work are intimately intertwined with the basic findings, only limited periods of delay in the right to publication can be accepted.

Consulting

Consulting may often be an academically worthwhile pursuit, particularly in professional faculties. Society often requires assistance which only the University has the expertise to provide. Professors should select their consulting work so that it enhances their research and teaching activities. The collection of information and perhaps some measure of control may be necessary by the professor's academic supervisor who should request information annually from the professor concerning the nature of the consulting work, the amount of time spent and money earned.

There are several types of consulting, but for the purposes of research policy, only those types need be considered which involve the employment of students, the use of University facilities or those undertaken within a contract to which the University is party. When graduate students are used, Graduate Faculty is involved. If students are employed in routine work separate from their academic programs, the amount of time spent and money earned is of concern. If the work is an integral part of their academic programs, students must be given adequate freedom to pursue a worthwhile piece of research and, at the same time, the work performed must be a product of the student's own efforts and not those of colleagues. The University is opposed to students deriving their basic financial support from the private consulting contracts of faculty members. If University facilities are used, then the University should be apprised through the academic supervisor, and should be recompensed for the use of these facilities.

The University endeavours to obtain, in contracts for consulting, freedom to publish the academically interesting aspects of the work within a definite time limitation which is usually two years. The University should only agree to assign patent rights arising specifically out of work done for the sponsor and then only when the sponsor undertakes to complete the application for the patent within, say, two years. Professors should also endeavour in their private consulting agreements to follow the same guidelines.

The delay of publication

Occasions arise where delays in the publication of research results may be justified. Instances of this, and the procedures to be followed, have already been mentioned. In connection with theses submitted by graduate students, circulation of the thesis through the University library or the National Archives may be postponed at the student's request for a period up to one year, if a patent application is pending, or if the premature disclosure is otherwise likely to jeopardize subsequent research; in such cases, the Executive Committee of the Faculty reviews the request and, if it approves, subsequently reports it to Faculty Council.

Procedures to obtain research support

When a member of the University staff wishes to undertake research involving the use of the University's facilities, or when the funds are to be used to support activities in which students or post-doctoral fellows are to be engaged as part of their educational experience, the University considers the activity to be part of its pattern of research and the following procedures apply:

All applications to external agencies for support of University research must, in the first place, be submitted to the chairman of the applicant's department for endorsement. In some faculties, the Dean's signature is also to be solicited, in others not; applicants should inform themselves on this point. Applications are then to be routed to either the Research Grants Office or the Research Contracts Office for review and signature by the Vice-Principal (Research).

If an award is subsequently made, it will be made to the University to administer. An account will be opened by the Special Funds' Accountant for the investigator to draw upon. All such funds will be accounted for as part of the University's research income and will be reported by the Chief Accountant in the normal way.

(The above is an abbreviation of "Elements of a Research Policy for McGill University". Copies of the complete document are available in the Faculty's Research Grants and Research Contracts Offices.)

GUIDELINES FOR NON-MEDICAL RESEARCH WITH HUMAN SUBJECTS

The University should insure that the welfare of human subjects who participate in research carried out by professors, students, and staff is safeguarded. This responsibility is complemented by our obligation to respect the law as it applies to privacy and human rights. Award-granting agencies require that the University protect subjects participating in funded research; ethical and possibly legal considerations require that we supervise all other research in this area as well.

Professional associations and learned societies have established ethical principles for research with human subjects. These standards specify the rights and the treatment which research subjects may expect. They deal with topics like privacy, the confidentiality of research information, the right of subjects to information about experimental procedures, the use of control groups, respect for subjects' psychological well-being, and respect for social stability.

The conscience of each investigator in applying these principles is the single most important protection for the welfare of human subjects. But the University, which also has a responsibility for their welfare, must assure that each investigator's ethical decisions have been confirmed or modified by the informed and dispassionate advice of peers who are not directly involved inthe research.

The following committees and tasks have been established as the means of exercising the University's responsibility. Since the Faculty of Medicine has already established a comprehensive research review procedure, this arrangement is limited to the review of non-medical research.

a) *Graduate Faculty Committee on Ethical Principles*

A committee consisting of a chairman and four members is chosen to represent, as widely as possible, the community involved in biosocial research. The purposes of this committee are:

i. to assert the University's concern with adherence to ethical standards in the conduct of all research;
ii. to receive recommendations from the local committees on their decisions on particular research projects;
iii. to review current and previous practice and recommend changes;
iv. to arbitrate, when requested by local committees, when a decision cannot be made about a particular research.

b) *Faculty and Departmental Committees on Ethical Principles*

These are *ad hoc* local committees convened for specific research projects by the department chairman, or, where the Faculty is recognized as an academic unit (as for example in Education), by the Dean. While it is the researcher's responsibility to request the formation of a review committee, it is the right of the Chairman or Dean to establish a committee on their own initiative, and to review research in their jurisdiction. Each committee should consist of five people, at least one of whom should come from outside the department or faculty concerned. The Chairman is the departmental chairman, or, where appropriate, the Dean, or their nominees.

PATENTS

University Patent Policy

(As approved by the Board of Governors 28 April, 1980)

Principles and Objectives

The University affirms the principles of wide freedom of research, and of free publication of the information generated. To carry on research solely or even primarily in anticipation of profits would be incompatible with the University's aims. But it must be recognized that inventions resulting from research, particularly in science and engineering, often serve the public interest best when protected by patents. In such cases the University and the inventors have a responsibility to promote the development and utilization of the inventions as appropriate. The University and the inventors should also be able to benefit financially.

Nothing in this policy statement has reference to copyrights on work published or unpublished or to compuler programs (software).

Rights of the Inventor, the University and Supporting Agencies

(1) This policy statement, and the provisions flowing from it, shall apply to all inventions made by members of the University (faculty members, staff and students) in the course of their normal duties at the University; or made, partly or wholly, on University premises and/or using University facilities; or made, in any way, with material support from the University, whether direct or indirect, complete or partial; provided however, that it shall not apply to inventions, as above defined, which are made under grants, sponsorships, contracts and research agreements, referred to in Paragraph (4), here in below, except where such grants, contracts or agreements specifically provide for, or implicity permit, the treatment of such inventions in accordance with University Patent Policy. Specifically excluded from this policy statement are inventions made by members of the University in the course of demonstrably private research unrelated to their University duties or in the course of their activities as consultants to outside bodies, when such activities do not involve any substantial use of University facilities.

(2) The University acknowledges that any invention as defined in Paragraph (1) above (hereinafter referred to simply as "invention") shall be owned by the inventor or inventors and, except for a share in the net income from such invention under Option A, or except for the rights to such invention ac-

quired by the University under Option B, as hereinbelow defined, the University shall have no other rights in respect of such invention.

(3) The University affirms the principle that revenues derived by it from patented inventions under Option A or B hereinbelow shall be used by the University to support research, with special recognition being given to the Faculty, Department or Laboratory in which the invention originated.

(4) Certain grants, sponsorships, contracts and research agreements entered into by the University, on its own behalf or on behalf of certain of its members, with government agencies, industrial companies and other bodies, may contain provisions in respect of inventions and patents therefore whereby all patent rights are assigned or licensed to such agencies, companies and other bodies, and may further contain provisions which are otherwise at variance with the provisions hereunder. The University retains the right to enter into such agreements and will require that its members concerned live up to any such provisions in such grants, sponsorships, contracts or agreements.

(5) Members of the University are required to report all presumed inventions in writing to the Vice-Principal (Research), substantially in a form as set and in the "Report of an Invention". The inventors are required to opt in writing, at the same time, between Option A and OptionB in accordance with the Procedure set out below. This exercise of the option must be made prior to taking any steps outside the University aimed at patenting, assigning or licensing the invention except the filing of a caveat under Section 74 of the Canadian Patent Act. No such steps, save for the exception aforesaid, must be taken outside the University during the first thirty (30) days after presentation of the report to the Vice-Principal (Research).

(6) Acceptance of this policy is a condition of employment by the University, and of registration as a student, and of being employed in any University laboratory or engaged in any University program.

(7) This Policy is set out in the University Regulations; procedures for implementing the Policy are deposited with the Secretary General and the Vice-Principal (Research), from whom further information may be obtained. Representations in any matter relating to this Policy or arising out of its implementation should be made to the Vice-Principal (Research) for consideration and decision by the University Patents Committee.

(8) An appeal from the decision of the Patents Committee in any matter relating to this Policy or arising out of its implementation, may be taken to the Principal.

Procedures

The Patents Committee of the University will be responsible for implementing the Patent Policy and will act under the authority of the Board of Governors. Its main function will be: (a) to consider the Reports of Invention of which it will be the recipient and to act on them; (b) to advise members of the University on matters relating to inventions and patents therefore; (c) and to act, as the University's agent, in any contractual relationship with outside persons and organizations for the patenting, licensing or any other exploitation of inventions.

The Patents Committee shall consist of the Vice-Principal (Research) chairman, two persons appointed by Senate and two persons appointed by the Board. The Nominating Committees of Senate and the Board shall have consulted with the Faculty of Graduate Studies and Research before making their respective nominations. The Committee shall also have the services of a non-voting secretary. In respect of each presumed invention, the inventor and the Dean of the inventor's Faculty will be invited to attend and state their views.

The options to be exercised by an inventor at the time of filing a Report of Invention are as follows:

Option A

The inventor may proceed on his own, or arrange with any outside sponsor of his choice, subject to the delay specified in paragraph (5) above, to obtain patents for his invention, to negotiate licenses and otherwise to take whatever steps he deems necessary for the commercialization of the invention – all at his or his sponsor's expense. The continuing obligations of the inventor, his successor or assigns under this Option will be:

(a) to provide the University with an annual statement, not later than 15 March of each year, reporting all relevant actions taken in respect of the invention during the previous calendar year, such as the issue of a patent, the conclusion of a license or the like; and reporting further the names and places of all establishments using the invention under license; and reporting further all expenditures for patenting and incomes from licensing the invention during the year; and

(b) to remit to the University, with such statement, the sum equal to 20% of the net income (income minus expenditure) received by the inventor from the invention.

Option B

The inventor offers to assign the invention to the University and at its option the University takes over the responsibility for obtaining patents, the negotiating of assignments or licenses and the taking of whatever other steps are deemed necessary for the commercialization of the invention - all at no cost to the inventor. All subsequent net income to the University from the invention will be shared equally with the inventor.

(a) Any Report of Invention under this Option B will be promptly considered by the Patents Committee, and the Committee will after a preliminary examination (involving, if necessary, assistance from outside sources), decide on whether or not it will take further steps leading to patent protection and, eventually, assignments or licensing. The decision of the Patents Committee will be communicated to the inventor in due course. If the decision is to take such further steps, the Patents Committee will preferably make use of the standing arrangements with such non-profit organization as CPDL in Ottawa or Research Corp. in New York, but may use any other reputable agency as circumstances may require.

(b) If, in respect of any Report of Invention, the decision of the Patents Committee is not to seek patent protection, or if no decision of any sort is taken by the Patents Committee on such Report within four months from the date of submission of such Report, the inventor may, upon notifying the Vice-Principal(Research) in writing, recover full ownership of the invention and proceed with it at his own discretion and at his own expense, and in such case any revenue which the inventor may subsequently derive from such invention shall be the inventor's only.

(c) If the non-profit organization or other agency to which an invention has been submitted for patenting and eventual licensing, as referred to in (a) hereinabove, decides that it will not take any steps leading to patent protection of the invention and unless the Patents Committee decides to seek other ways to protect the invention, it will be returned to the inventor. In such case the inventor may proceed with the invention at his discretion and at his own expense and any revenue which he may subsequently derive from such invention shall be the inventor's only. In any event, within four months from the date it submits an invention to a patent agency, the Patents Committee will review the case to see what progress is being made to obtain patent protection.

(d) The arrangements with such non-profit organizations as CPDL or Research Corporation or like agencies, follow the pattern of agreements customary between such organizations or agencies and universities, namely in that such organizations or agencies assume the costs of obtaining patents and licensing them, and recover such costs from their retained share of the income from the invention. The share of income accruing to the University is divided equally between the University and the inventor.

POST-DOCTORAL FELLOWS

Post-doctoral fellows are junior Ph.D. graduates engaged by a member of the University's academic staff to assist him/her in his/her research. Medical post-doctoral fellows possess the M.D. degree. Post-doctoral fellows may register with the Faculty through the Dean's Office (or in the case of medical post-doctoral fellows, through the Office of the Dean of Medicine) and receive thereby a university identity card, library and other staff privileges. They become liable to the provisions of the Health Insurance Plan if they are not permanent residents or Canadian citizens.

RESEARCH ASSOCIATES

This title is intended to provide recognition and status on the University records for senior investigators who are neither candidates for a degree nor members of the regular teaching staff of McGill University, but are attached temporarily to a department because their assistance is required in the interests of a current program of research.

A Research Associate will normally hold the Ph.D. degree or an equivalent qualification.

McGILL INTERNATIONAL

The Office of McGill International was created in June 1980 to coordinate the international relations of the University, with particular emphasis on developing countries. The office aims to facilitate the enrolment of qualified students, the exchange of academics with developing countries, and to help McGill staff arrange teaching, research and consulting activities abroad. The Office seeks a better understanding with other universities, wishes to encourage student exchanges, and generally plays the role of a clearing house for the benefit of the McGill community and its external counterparts.

McGill International also aims to insure that McGill staff who are active in scholarly studies on or in any area in countries abroad can benefit from one another's experience. As an early step in fostering communications, McGill International has established regional groups composed

of faculty members (including visiting staff from other nations) and graduate students having interests in the same geographic areas. African, Latin American, Middle Eastern, Caribbean and Chinese groups are now active. McGill International hopes in this way to strengthen interest and expertise in studies abroad, and to make contributions to a solution of the problems of underdevelopment. In all cases, the projects initiated by McGill staff members and fostered by McGill International have, as their primary aim, the promotion of scholarly work and academic values.

OFFICE OF INDUSTRIAL RESEARCH

The Office of Industrial Research provides a point of contact between faculty members, industry and government. The Office promotes the capabilities of faculty members, their interaction with industrial and governmental organizations and submission of research proposals. On behalf of the university, the Office negotiates research contracts and provides administrative and business services as required.

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DEPARTMENTS OF STUDY
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Animal Science ... A3
Biology ... A4
Chemistry and Physics (Agricultural) ... A1
Engineering (Agricultural) ... A2
Entomology ... A5
Microbiology ... A6
Parasitology ... A7
Plant Science ... A8
Renewable Resources ... A9

BIOLOGICAL SCIENCES – SECTION "B"

Bellairs Research Institute ... B1
Biochemistry ... B2
Biology ... B3
Entomology (See Section "A") ... A5
Microbiology and Immunology ... B4
Microbiology (Macdonald Campus See Section "A") ... A6
Oceanography (See Section "A") ... B5
Parasitology ... B6
Physiology ... B7
Psychology ... B8
Wildlife Biology ... B9

HUMANITIES–SECTION "C"

Art History ... C1
Classics ... C2
Communications ... C3
Comparative Literature ... C4
English ... C5
French ... C6
German ... C7
Greek ... C2
Hispanic Studies ... C8
Islamic Studies ... C9
Italian ... C10
Jewish Studies ... C11
Latin ... C2
Linguistics ... C12
Music ... C13
Philosophy ... C14
Religious Studies ... C15
Russian and Slavic Studies ... C16

MEDICAL AND ALLIED SCIENCES– SECTION "D"

Anatomy ... D1
Biochemistry ... D2
Biomedical Engineering Unit ... D3
Dentistry ... D4
Epidemiology & Health ... D5
Human Communication Disorders ... D6
Medical Physics Unit ... D7
Medicine (Experimental) ... D8
Microbiology & Immunology ... D9
Neurology ... D10
Nursing ... D11
Obstetrics & Gynecology ... D12
Occupational Health & Safety ... D13
Otolaryngology ... D14
Pathology ... D15
Pharmacology & Therapeutics ... D16
Physical & Occupational Therapy ... D17
Physiology ... D18
Psychiatry ... D19
Diagnostic Radiology ... D20
Surgery ... D21

PHYSICAL SCIENCES AND ENGINEERING –SECTION "E"

Architecture, School of ... E1
Biomedical Engineering ... E2
Chemical Engineering ... E3
Chemistry ... E4
Civil Engineering ... E5
Computer Science, School of ... E6
Crystallography ... E7
Electrical Communications (See Elect. Eng.) ... E8
Electrical Engineering ... E8
Geography ... E9
Geological Sciences ... E10
Geophysics, Applied (See under Mining Eng.) ... E15
Mathematics ... E11
Mechanical Engineering ... E12
Mechanics, Applied (See under Civil Eng.) ... E5
Meteorology ... E13
Mining and Metallurgical Engineering ... E14
Northern Studies ... E15
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Oceanography (See also Section "B") ... E17
Physics ... E18
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SOCIAL SCIENCES–SECTION "F"

Air and Space Law ... F7
Anthropology ... F1
Comparative Law ... F7
Developing-Area Studies ... F2
Economics ... F3
French Canada Studies ... F4
Geography ... F5
History ... F6
International Relations ... F8
Law ... F7
Political Science ... F8
Psychology ... F9
Social Work, School of ... F10
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EDUCATION – SECTION "G"
LIBRARY SCIENCE – SECTION "H"
MANAGEMENT – SECTION "I"

1982-83

FACULTY OF GRADUATE STUDIES AND RESEARCH

McGill University
Montreal

Section "A"

Agricultural and Allied Sciences

A1 - Department of Agricultural Chemistry and Physics
A2 - Department of Agricultural Engineering
A3 - Department of Animal Sciences
A4 - Department of Biology
A5 - Department of Entomological Museum and Research Laboratory
A6 - Department of Microbiology
A7 - Institute of Parasitology
A8 - Department of Plant Science
A9 - Department of Renewable Resources

The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

Legal Deposit I 82

A1 DEPARTMENT OF AGRICULTURAL CHEMISTRY AND PHYSICS

Macdonald Campus
21111 Lakeshore Road,
Ste. Anne de Bellevue, PQ
Canada H9X 1C0

STAFF

Professors – P.A. ANASTASSIADIS; B.E. Baker; R.H. Douglas
Professors Emeritus – R.H. COMMON; W. ROWLES
Associate Professors – P.H. SCHUEPP *(Chairman)*, N.N. BARTHAKUR; M.A. FANOUS; H.J. HUECKEL; W.D. MARSHALL
Assistant Professors – G. PAQUETTE
Auxiliary Professors – W.P. MCKINLEY; C.G. ZARKADAS
Associate Members – H.J.T. BEVERIDGE; T.G. SMYRL
Lecturer – R.N. BARRETT

The Department has laboratory and library facilities for research leading to the degrees of Master of Science and Doctor of Philosophy in the following areas: food chemistry; animal and plant biochemistry; pesticide chemistry; nutrition; environmental pollution; heat and mass transfer; agroclimatology.

REQUIREMENTS

Requirements for the M.Sc. Degree (Chemistry)

(1) Candidates are required to have the B.Sc. (Agr.) degree with honours standing or an equivalent qualification. Students holding a B.Sc. degree may be accepted if they have appropriate undergraduate work in chemistry with sufficient biology; otherwise a qualifying year will be required.
(2) Candidates for the M.Sc. degree are required to take the examinations in two courses for higher degrees given in the Department.
(3) Candidates may be required to take supplementary and/or graduate courses in Statistics, computing, tracer techniques or biochemistry as required.
(4) Candidates are required to complete an acceptable research project and to submit an acceptable thesis on their research.

Requirements for the Ph.D. Degree (Chemistry)

Candidates will be judged principally by their ability in research. Course work will be arranged with other departments on the Macdonald Campus to meet individual needs. Special arrangements for course work may be made with the McGill Departments of Chemistry and Biochemistry. Candidates should be prepared to take the Comprehensive Preliminary Examination by the end of the first year in which they are candidates for the Ph.D. degree. Candidates are required to pass an examination in Technical French (354-300A,B). Candidates *may* be required to pass a similar examination in a second language.

Requirements for the M.Sc. and Ph.D. Degrees (Physics)

Accepted candidates for higher degrees in Physics are required to follow a program of study and research which is designed on an individual *ad hoc* basis, and approved by the Faculty of Graduate Studies and Research.

COURSES FOR HIGHER DEGREES

332-614A PROTEIN AND NUCLEIC ACID BIOCHEMISTRY. The structure-function relationships of proteins and nucleic acids, their chemical and biochemical properties and the structural basis of the mechanisms involved in their functions in living systems.
Professor Zarkadas

332-615B MUSCLE BIOCHEMISTRY. The structural organization of muscle, cytoskeleton, microtubules, intermediate filaments, etc., the structure-function relationships of these major protein systems, and the molecular basis of muscle contraction and cell or organelle mobility.
Professor Zardakas

332-651A FOOD ANALYSIS I. (2 lectures and one laboratory period). Proximate analysis. Chemical examination of sugars, starches, cereals, oil seeds, fat and fat products, fruits, dairy and meat products. Vitamins, food colours, flavours. Contaminants. Physiochemical methods used in food analysis.
Professor Paquette

332-652B FOOD ANALYSIS II. (2 lectures and one laboratory period). A specialized course on the principal analytical techniques used for analysis of carbohydrate, lipid, protein and vitamin constituents of foods and feedstuffs, for detection and determination of chemical additives and contaminants and rheological and color analysis.
Professor Paquette

332-660 ASSESSMENT OF HEALTH RISKS FROM TOXICANTS. Factors involved in hazard (risk) assessment of human exposure to environmental contaminants, natural toxins and food additives will be discussed using specific examples. The extrapolation of animal toxicity trials and other pertinent studies (carcinogenicity, teratology and mutagenicity) to humans will be examined in detail in light of current Canadian law and regulatory procedures.

Professor McKinley

332-664D GRADUATE SEMINAR. (1 hour).
Staff

332-700D COMPREHENSIVE PRELIMINARY EXAMINATION. (See Faculty Regulations).
Staff

338-602B ISOTOPIC TRACER TECHNIQUES. (2 lectures and 1 four-hour laboratory, second term; Prerequisite: 338-303A or equivalent). An advanced practical course designed to introduce qualified students to laboratory equipment and techniques required for tracer experiments. The theory and use of end-window and windowless G.M. counter, proportional counters, scintillation counters both solid and liquid types, and a Nier type mass spectrometer will be studied.

Professor Barthakur

360-610A,B STATISTICAL METHODS II. (3 hours lectures and 2 hours laboratory; Prerequisite: 360-201A or equivalent). Multiple, curvilinear and stepwise regression; partial and multiple linear correlation; simple analysis of covariance; cross and nested classifications; split-plot techniques; orthogonal comparisons; transformations.

Professor Fanous

360-612B MATHEMATICAL METHODS. (3 hours lectures; Prerequisite: 360-205B, Differential Equations, or equivalent). Partial differential equations and boundary-value problems; Fourier and Bessel series expansions; applications; special topics; numerical methods; Laplace transformation.

Professors Schuepp and Kok

360-613B TECHNIQUES OF STATISTICAL ANALYSIS. (3 hours lectures; Prerequisite: 360-610A or equivalent). Non-parametric methods; multiple analysis of covariance.

Professor Fanous

A2 DEPARTMENT OF AGRICULTURAL ENGINEERING

Macdonald Campus
21111 Lakeshore Road,
Ste. Anne de Bellevue, PQ
Canada H9X 1C0

STAFF

Professor — R.S. BROUGHTON
Associate Professors - E. McKYES *(Chairman)*; P.J. JUTRAS; R. KOK; E.R. NORRIS
Assistant Professor - G.S.V. RAGHAVAN
University Lecturer - E. PERRATON
Research Associates - E. DOUGLAS

The Department offers facilities for research work in the areas of water control, agricultural structures, plant and animal environment, engineering properties of agricultural products, agricultural waste management, agricultural machinery, soil-machine mechanics and food engineering leading to the degrees of Master of Science and Doctor of Philosophy.

Candidates for M.Sc. and Ph.D. degrees should indicate in some detail their fields of special interest when making application for admission.

REQUIREMENTS

Language Requirements

Fluency in one of the official Canadian languages and a reading ability in the other is a requirement for an advanced degree. This requirement will be waived for non-Canadian students who can demonstrate a fluency in one of the official Canadian languages and a reading ability in any other language in which there is significant literature in their field of research. The two official languages in Canada are English and French. Suitable courses are available on both campuses.

Requirements for the M.Sc. Degree

The program for candidates for the M.Sc. degree will be developed in consultation with the candidate's research director and will normally include a minimum of eight term courses plus a thesis submitted in accordance with the rules of the Faculty. Courses will be selected from those offered in the Agricultural Engineering Department and those in such other departments as Agronomy, Animal Science, Civil Engineering, Mathematics, Mechanical Engineering, Renewable Resources and Economics.

Candidates are expected to meet the qualifications of a professional engineer either before or during their M.Sc. studies.

Requirements for the Ph.D. Degree

(1) Candidates for the Ph.D. degree will normally register for the M.Sc. degree in the first instance. In cases where the research work is proceeding very satisfactorily, or where the equivalent of the M.Sc. degree has been completed at another university, candidates may be permitted to proceed directly to the Ph.D. degree.

(2) Courses of study selected for a Ph.D. program will depend on the existing academic qualifications of the candidate and on those needed for effective prosecution of research. Candidates are encouraged to undertake an additional course of study of their own choice in some field of the humanities, sciences or engineering not directly related to their research. The program will be established by consultation of the candidate with a committee that will include the research director and at least one other professor. Normally from six to twelve term courses will be required beyond the M.Sc. degree.

(3) A comprehensive examination, Agricultural Engineering 336-701D, will be taken either late in the Ph.D. 2, or early in the Ph.D. 3 registration year, to qualify to proceed to the completion of the Ph.D. degree.

COURSES FOR HIGHER DEGREES

336-504B INSTRUMENTATION AND CONTROL. (3 lectures and 2 hours laboratory, even numbered years; Prerequisite: Circuit analysis 336-312A). Principles and operation of instrument systems used in measurement and control in agricultural processes and research.
Professor Norris

336-511B AGRICULTURAL AND EARTHMOVING POWER MACHINERY. (2 lectures and 2 hours laboratory, odd-numbered years). An advanced treatment of off-road vehicle design. Topics include performance characteristics, internal combustion engines, analysis of power transmission devices, distribution of stresses between wheeled or tracked vehicles and soil, mobility and pull efficiency, soil cutting, earthmoving, plowing, ripping and transport, wheel and track, steering geometries, vehicle morphology.
Professor McKyes

336-602A ENVIRONMENT CONTROL IN AGRICULTURAL STRUCTURES. (3 lectures, 2 hour laboratory). A study of the environmental effects of housing on stored crops and animals. The production, maintenance, and control of the environment. The effects of the interior environment on structural components.
Professor Jutras

336-603D GRADUATE SEMINAR. (1 hour).
Staff

336-605B FUNCTIONAL ANALYSIS OF AGRICULTURAL MACHINES. (2 lectures). Theoretical analysis of unit operations to be performed by various tillage and harvesting machines. These analyses will consider the physical and biological properties of the materials affected by the machines.
Professor Norris

- **336-606C LAND DRAINAGE ENGINEERING.** (3 lectures). Land drainage in relation to soils and crops. Design of regional drainage systems, stability of ditches, ice problems. Design of subsurface drainage systems. Theories of flow into drain tubes. Hydraulics of wells. Drainage of irrigated lands. Water table control.
Professor Broughton

- **336-607B ENGINEERING ASPECTS OF PLANT ENVIRONMENT.** (3 lectures, even-numbered years). The energy budget of the earth's surface. Laminar and turbulent flow in the air layer near plant-covered ground. Evaporation and transpiration. Artificial protection against advection and radiation frosts. The use of artificial means to improve the environment of plants. Control of environment in plant growth structures.
Professors Jutras and Raghavan

336-608A,B SPECIAL PROBLEMS IN AGRICULTURAL ENGINEERING. (2 conferences, either term). Laboratory, field and library studies and reports on special problems related to Agricultural Engineering that are not covered in the regular course work.
Professor Norris and Staff

336-609B HYDROLOGY. (2 lectures, even-numbered years). A fundamental course in Hydrology. Topics covered include: the inter-relationships between precipitation, interception, infiltration, evapo-transpiration, and surface runoff; analysis of precipitation and streamflow data; use of hydrographs; hydraulics of groundwater and wells; use and replenishment of groundwater; evaporation and transpiration; irrigation water requirements.
Professor Broughton

36-610D TECHNOLOGY OF FERMENTED FOOD PRODUCTION. (3 lectures, offered in alternate years, given in 1982-83). Engineering aspects such as heat generation and transfer, fermentation vessel design, scale up and control instrumentation are considered as well as specific processes. Microbiological topics include articificial mutant induction, laboratory culture maintenance and phage contamination and control.
Professors Kok and Idziak

336-701D COMPREHENSIVE EXAMINATION IN AGRICULTURAL ENGINEERING.
Staff

336-702A,B SPECIAL PROBLEMS IN AGRICULTURAL ENGINEERING II (2 conferences, either term). Advanced level laboratory, field and library studies and reports on special problems related to Agricultural Engineering which are not covered in regular course work. Designed for doctoral level students with experience in postgraduate studies.
Professor McKyes and Staff

A3 DEPARTMENT OF ANIMAL SCIENCES

Macdonald Campus
21111 Lakeshore Road,
Ste. Anne de Bellevue, PQ
Canada H9X 1C0

STAFF

Professors - R.B. BUCKLAND *(Chairman) (Animal Genetics and Physiology);* E. DONEFER *(Nutrition);* J.E. MOXLEY *(Animal Genetics);* S. TOUCHBURN *(Nutrition)*
Associate Professors - B.R. DOWNEY *(Physiology);* P.C. LAGUE *(Physiology)*
Assistant Professors — E. BLOCK *(Nutrition Physiology);* E. CHAVEZ *(Nutrition);* J.F. HAYES *(Animal Genetics);* K.F. NG-KWAI-HANG *(Biochemistry);* L.M. SANFORD *(Physiology)*
Assistant Professor - Special Category - L.E. PHILLIP *(Nutrition)*
Auxiliary Professor — J. GAVORA *(Animal Genetics)*
Lecturers — E.J. GARINO *(Nutrition);* R.K. MOORE *(Animal Genetics)*
Associate Members — S. WEBER; F. FARMER *(Food Science);* H. HUECKEL *(Chemistry & Physics)*

The department provides laboratory facilities for research work leading to the degrees of Master of Science and Doctor of Philosophy in each of the following disciplines.

Animal Genetics
Animal Physiology
Nutrition

REQUIREMENTS FOR ADVANCED DEGREES

Candidates are required to have either a Bachelor's degree in Agriculture or a B.Sc. degree with specialization in biology, biochemistry or food science with a grade point average of 3.2 out of 4.0 or its equivalent.

Undergraduate Courses

Candidates will be required to complete undergraduate courses in Animal Science or in the basic sciences when their backgrounds are judged inadequate.

342-301B PRINCIPLES OF ANIMAL BREEDING.

342-311B ANIMAL PATHOLOGY.

342-323A MAMMALIAN PHYSIOLOGY.

342-330A FUNDAMENTALS OF NUTRITION.

342-331B FUNDAMENTALS OF HUMAN NUTRITION.

342-424B METABOLIC ENDOCRINOLOGY.

342-433B ANIMAL NUTRITION.

Candidates may be required to take one or more of the following courses on the Montreal campus:

516-502A ADVANCED ENDOCRINOLOGY

516-503B ADVANCED ENDOCRINOLOGY

516-507D ADVANCED APPLIED RESPIRATORY PHYSIOLOGY

516-512A PHYSICAL METHODS IN BIOLOGICAL RESEARCH

552-502A EXERCISE PHYSIOLOGY

552-508A ADVANCED RENAL PHYSIOLOGY

552-513B CELLULAR IMMUNOLOGY

552-515A PHYSIOLOGY OF BLOOD I: HEMOSTASIS AND RBC DESTRUCTION

552-516B PHYSIOLOGY OF BLOOD II: OXYGEN TRANSPORT AND NUTRITIONAL ANEMIA

552-517B PHYSIOLOGICAL SUPPORT SYSTEMS

Course Requirements by Department

In addition to the departmental courses indicated below, all candidates will be required to complete any cognate courses prescribed by their committee. The completion of an acceptable thesis based upon the candidate's own research will be required.

Animal Genetics

(a) M.Sc. PROGRAM - At least two of the following courses (342-603A, 342-604A, 342-605B, 342-606B,) plus 342-695D, 342-696D and at least 3 additional one-semester equivalent courses selected in consultation with director of research.
(b) Ph.D. PROGRAM - At least three of the following courses (342-603A, 342-604A, 342-605B, 342-606B,) or their equivalent, plus 342-697D, 342-698D and 342-701D and at least 3 additional one-semester

equivalent courses selected in consultation with director of research.

Animal Physiology

(a) M.Sc. PROGRAM - Courses 342-611B, 342-651A, 342-652B and 342-695D, 342-696D plus at least two additional courses selected in consultation with director of research.

(b) Ph.D. PROGRAM - 342-611B, 342-651A, 342-633A, 342-634B, 342-635B or their equivalents and 342-697D, 342-698D and 342-701D and at least three additional courses selected in consultation with director of research.

Nutrition

(a) M.Sc. PROGRAM — Courses 342-601A, 342-602B, 342-633A, 342-634B, 342-635B, 342-651A, 342-652B, 342-695D, 342-696D and at least one additional course selected in consultation with research director.

(b) Ph.D. PROGRAM - Required courses for M.Sc. program or their equivalent plus 342-697D, 342-698D, 342-701D and at least two additional courses selected in consultation with research director.

Graduate Courses

342-601A EXPERIMENTAL TECHNIQUES IN ANIMAL SCIENCE "A". (1 lecture, 1 laboratory). A series of lectures and laboratories of nutritional experimentation and surveys. Emphasis will be placed on the design and conduct of nutrition studies, selection of experimental animals, chemical and biological assays, statistical analysis, interpretation of data and preparation of technical reports.
Professor Chavez and Staff

342-602B EXPERIMENTAL TECHNIQUES IN ANIMAL SCIENCE "B". (1 lecture, 1 laboratory). A series of lectures and laboratories of nutritional experimentation and surveys. Emphasis will be placed on the design and conduct of nutrition studies, selection of experimental animals, chemical and biological assays, statistical analysis, interpretation of data and preparation of technical reports.
Professor Chavez and Staff

342-603B PHYSIOLOGICAL GENETICS OF DOMESTIC ANIMALS. (2 lectures). A consideration of biochemical and physiological variation in domestic animals as related to productive traits.
Professors Buckland and Ng-Kwai-Hang

342-604A POPULATION GENETICS. (2 lectures). A consideration of the problems involved in the improvement of animals and the application of genetics in their solution.
Professor Moxley

342-605B ESTIMATION OF GENETIC PARAMETERS (2 lectures). General methods for the estimation of components of variance and co-variance are considered, with specific emphasis given to their application to heritability, repeatability and genetic correlation estimation.
Professor Hayes

- **342-606B SELECTION INDEX AND ANIMAL IMPROVEMENT** (2 lectures). Selection index principles and their application to livestock improvement are considered, with emphasis on the estimation of genetic breeding values for single and multi-trait selection.
Professor Hayes

342-607A LINEAR MODELS IN AGRICULTURAL RESEARCH. (3 lectures). The theory and application of linear models to agricultural research is considered. Special emphasis is given to the analysis of experimental and survey data with unequal subclass numbers.
Professor Hayes

342-611B ADVANCED REPRODUCTIVE PHYSIOLOGY. (2 lectures, 1 seminar). A lecture-seminar course involving an in depth discussion of current concepts relating to male and female reproduction, primarily of domestic animals and avian species. Topics to be considered will include the regulation of gonadal function and sexual behavior, pregnancy and parturition, and methods of assessing and/or improving reproductive efficiency.
Professors Downey and Sanford

- **342-633A PROTEIN NUTRITION.** (3 lectures). Current advances in the field of nutrition in areas dealing with protein metabolism. The most recent advances in the knowledge of nutrient function and needs in different animal species, as well as major controversial aspects in these areas of nutrition will be discussed.
Professor Phillip and Staff

- **342-634B ENERGY IN NUTRITION.** (2 lectures). Current advances in the field of nutrition in areas dealing with energy metabolism. The most recent advances in the knowledge of nutrient function and needs in different animal species, as well as major controversial aspects in these areas of nutrition will be discussed.
Professor Touchburn and Staff

- **342-635B VITAMIN AND MINERAL NUTRITION.** (3 lectures). Current advances in the field of nutrition in areas dealing with vitamins and minerals. The most recent advances in the knowledge of nutrient function and needs in different animal species, as well as major controversial aspects in these areas of nutrition will be discussed.
Professor Block and Staff

342-651A CARBOHYDRATE AND LIPID METABOLISM IN ANIMALS. (2 lectures). A study of the structures, properties, functions and metabolisms of carbohydrates and lipids in the animal system with special emphasis on the mechanisms involved in regulation of the different pathways.
Professor Ng-Kwai-Hang

342-652B PROTEIN METABOLISM IN ANIMALS. (2 lectures). A course dealing with the structure, classification, properties and metabolism of protein, nucleotides, polynucleotides and DNA. The genetics and biochemistry of protein synthesis will also be discussed.
Professor Ng-Kwai-Hang

342-691D SPECIAL PROJECTS IN ANIMAL SCIENCE. For students who undertake a research or library project not offered in other courses.
Staff

342-695D ANIMAL SCIENCE SEMINAR I. (1 hour). First of 2 seminars to be given by all students in an M.Sc. program. This seminar will consist of a review of literature in relation to the student's proposed research and an experimental design of the research to be conducted. Each student will also participate in a symposium.
Professor Buckland

342-696D ANIMAL SCIENCE SEMINAR II. (1 hour). The second of 2 seminars to be given by all students in an M.Sc. program. This seminar will consist of a presentation of the results of the student's research. Each student will also participate in a symposium.
Professor Buckland

342-697D ANIMAL SCIENCE SEMINAR III. (1 hour). The first of 2 seminars to be given by all students in a Ph.D. program. This seminar will consist of a review of literature in relation to the student's proposed research and an experimental design of the research to be conducted. Each student will also participate in a symposium.
Professor Buckland

342-698D ANIMAL SCIENCE SEMINAR IV. (1 hour). The second of 2 seminars to be given by all students in a Ph.D. program. This seminar will consist of a presentation of the results of the student's research. Each student will also participate in a symposium.
Professor Buckland

342-701D DOCTORAL COMPREHENSIVE EXAMINATIONS. (See Faculty Regulations).

342-730D COLLOQUIUM IN NUTRITION. (1 lecture). The student will prepare two scholarly, original, critical and well-documented written reports on recent developments in nutrition other than those of the thesis of seminars as approved by nutrition staff. They will form the basis of oral presentations to the staff and graduate students in nutrition.
Professor Touchburn and Staff

A4 DEPARTMENT OF BIOLOGY

Stewart Biology Building
1205 Avenue Docteur Penfield
Montreal, PQ
Canada H3A 1B1

Course Given on the Macdonald Campus

177-675B STATISTICAL METHODS IN GENETICS. Discussions of methods of analysing genetic changes in plant and animal populations. Diallel cross techniques are examined in some detail, but the choice of topics is by no means rigid. The course is open to graduate students from both the Macdonald Campus and the Biology Department, McGill.
Professor Tyson and Dr. Fieldes

A5 DEPARTMENT OF ENTOMOLOGY AND LYMAN ENTOMOLOGICAL MUSEUM AND RESEARCH LABORATORY

Macdonald Campus
21111 Lakeshore Road,
Ste. Anne de Bellevue, PQ
Canada H9X 1C0

STAFF

Professors - D.K. McE. Kevan *(Director, Lyman Entomological Museum and Research Laboratory);* J.E. McFARLANE; R.K. STEWART *(Chairman);* V.R. VICKERY *(Curator, Lyman Entomological Museum and Research Laboratory)*
Associate Professors - S.B. HILL; W.N. YULE
Assistant Professor - D.J. LEWIS
Associate Members of Department - Professors E. MEEROVITCH *(Institute of Parasitology)* and J.R. BIDER *(Wildlife Biology)*

A liberal interpretation is put on the term Entomology. Excellent laboratory and library facilities are available for the courses listed below and for research.

By an informal arrangement, part of a student's research may be done at an approved research establishment, within reasonable distance of the Department. Students may be recommended to take undergraduate courses or courses offered by other departments of the University, either as part of their major work or as

cognate subjects. All members of the graduate school are expected to take an active part in all departmental seminars and to address at least one seminar meeting per year. For those with credit in 350-695D, this may take the form of a Research Report.

The Lyman Entomological Museum and Research Laboratory, although integrated with it, is not administratively a part of the Department of Entomology, but it is academically staffed by, and all its students are registered in, that department. It provides excellent facilities for students of taxonomy.

REQUIREMENTS

Requirements for the M.Sc Degree

Candidates for admission must have had (1) satisfactory previous training in mathematics, physical sciences and biology; and (2) have achieved a high academic standing in a Bachelor's degree in Zoology or Entomology. For students who satisfy these conditions the minimum period of study is three terms. Students whose equivalent courses are deficient in Entomology may be required to take advanced undergraduate courses sufficient to ensure a good general knowledge of Entomology.

In addition to presenting a thesis the student shall take such courses and write such examinations as are deemed necessary by the Chairman of the Department in consultation with the candidate's research director. Normally this amounts to a minimum of two full graduate courses (or their equivalent) in addition to 350-695D.

The candidate will normally be expected to spend at least one summer term in full-time research on the Macdonald Campus or, under suitable direction, at some other approved institution. Preliminary studies may begin before the opening of the academic year.

Requirements for the Ph.D. Degree

Students who have obtained a high standing in the M.Sc. degree in Entomology or its equivalent (including the M.Sc. degree in Zoology, with a sound entomological background), may proceed to the Ph.D. degree in two additional years. Under certain circumstances students holding a Bachelor's degree of high standing may change their registration from the M.Sc. degree to the Ph.D. degree with the consent of the Chairman of the Department and the Faculty of Graduate Studies and Research. However, before these students are allowed to enter third year, they must pass an examination to determine their fitness to proceed. This will normally take the form of the comprehensive examination (350-701D) taken by all Ph.D. candidates before proceeding to a second year of residence on the Macdonald Campus. Three years of residence are required of such students.

In addition to presenting a thesis the candidate may be required to take such courses and pass such examinations as are decided upon in consultation with the Chairman of the Department and the director of his research. Normally no course work (other than a Seminar) will be required during the final year and not usually more than one full course (or its equivalent) during the preceding year for candidates already possessing an M.Sc. degree from McGill University or its equivalent. Candidates may, however, be advised or required to attend courses bearing on their research work, or to make up deficiencies, at any time during their period of resident study.

Participation in seminars will be taken into consideration in the final assessment of the candidate. Candidates are advised to study, and may also be required to demonstrate, a reading knowledge of one, or in some instances two languages other than English, these requirements to be decided by the Chairman of the Department in consultation with the candidate's research director. Candidates who must meet language requirements should consult the General Information and Faculty Regulations of the Faculty of Graduate Studies and Research in respect of procedures.

Ph.D. candidates may be permitted to spend one of their years of full-time study at an approved university of research institution other than McGill University, provided that they spend at least two academic sessions in residence at McGill University. The candidate may be required to spend the equivalent of two summer sessions in full-time research on the Macdonald Campus or, under suitable direction, at some other approved institution. Preliminary studies may begin before the opening of the academic year.

Candidates for M.Sc. or Ph.D. degrees should indicate in some detail their fields of special interest when making application for admission. Facilities are available for research in most branches of entomology and in related fields, but candidates with special problems should consult the Chairman of the Department in advance.

COURSES FOR HIGHER DEGREES

350-610D ADVANCED TAXONOMY AND ZOOGEOGRAPHY.
Professors Kevan and Vickery

350-625A GENERAL INSECT ECOLOGY.
Professor Stewart
(Normally taken in conjunction with 350-726B)

350-631A SOIL FAUNA.
Professors Hill and Kevan
(Normally taken in conjunction with 350-632B)

350-632B SOIL ECOLOGY.
Professors Hill and Kevan
(Normally taken in conjunction with 350-631A).

350-635B AQUATIC ENTOMOLOGY.
Professor Lewis

350-640D ADVANCED ECONOMIC ENTOMOLOGY.
Professor Yule

350-660A,B EARLY HISTORY OF ENTOMOLOGY.
(Reading knowledge of German required).
Professor Kevan

350-695D SEMINAR AND RESEARCH REVIEW.
(Two meetings weekly).
Professor Hill and Staff

350-701D Ph.D. COMPREHENSIVE EXAMINATION.
Entomology Staff and Others

350-715D ADVANCED INSECT MORPHOLOGY
Professors Kevan and Lewis

350-720D ADVANCED INSECT PHYSIOLOGY.
Professor McFarlane

350-720D ADVANCED INSECT MORPHOLOGY.
Professor McFarlane

350-726B INSECT POPULATION DYNAMICS.
Professor Stewart
(Normally taken in conjunction with 350-625A).

350-750A,B VETERINARY AND MEDICAL ENTOMOLOGY. (Given only irregularly by special arrangement when demand sufficient).
Professor Kevan, assisted by Professors Meerovitch and Lewis

367-634A NEMATOLOGY.
Professor Estey

367-635B NEMATODE DISEASES OF PLANTS.
Professor Estey

374-605B WILDLIFE ECOLOGY.
Professors Bider and Titman

391-504L APPLIED PARASITOLOGY.
Professor Meerovitch

A6 DEPARTMENT OF MICROBIOLOGY

Macdonald Campus
21111 Lakeshore Road,
Ste. Anne de Bellevue, PQ
Canada H9X 1C0

STAFF

Professors – E.S IDZIAK *(Microbiology and Food Science);* R. KNOWLES *(Chairman);* R.A. MacLEOD
Associate Professor – J.M. INGRAM
Assistant Professor – D.F. NIVEN
Associate Members – R. KOK *(Agricultural Engineering);* H.M. SCHULMAN *(Lady Davis Institute)* C.E. TANNER *(Parasitology)*

Adequate laboratory and library facilities are available for courses leading to higher degrees, and for research. Candidates for the higher degree must meet the course requirements satisfactorily but are judged principally by their research ability. Normally in this Department the research problem will be on microbial physiology and bio-chemistry or on micro-biological aspects of soil, food or water.

REQUIREMENTS

Requirements for the M.Sc. Degree

Candidates are required to have the B.Sc. degree in the Biological Sciences, preferably with a Major in Microbiology or its equivalent. Students with a B.Sc. degree in other disciplines or majors who lack sufficient training will be required to take either a qualifying year or undergraduate courses sufficient to ensure a good general knowledge of microbiology. Students with sufficient training and graduate level standing (B or higher) will be required to take part in Graduate Seminars as well as pass examinations in graduate courses selected in consultation with the Thesis Supervisor and the Department Chairman. Candidates must present a satisfactory thesis based on their own research.

Requirements for the Ph.D. Degree

Candidates, normally, are required to have received an M.Sc. degree or its equivalent. The candidate must demonstrate a sound critical approach to and a capacity for research and must complete an original problem and present a satisfactory thesis based on the research. In addition, the candidate will be required to take examinations in courses given by this department or in cognate subjects given on the Macdonald Campus or at the Montreal Campus and to take part in

the Graduate Seminar in each year of residence. The candidate will be required to take an oral or written comprehensive examination (Course 362-701D) no later than the end of the Ph.D. 2 year. An examination in languages other than English is not required.

COURSES FOR HIGHER DEGREES

362-750A BIOENERGETICS. (2 hours, offered in alternate years, given in 1983-84. Prerequisite: Biochemistry I (332-211A) and Microbial World (362-230B) or equivalent). A study of methods used to establish the sequence of intermediates in the respiratory chain, respiratory systems in bacteria and mitochondria, the chemiosmotic hypothesis, mechanisms of proton pumping and ATP formation.
Professor MacLeod

362-751B CELL MEMBRANES AND TRANSPORT. (2 hours, offered in alternate years, given in 1983-84. Prerequisite: 362-750A or equivalent). A study of cell membrane structure, mechanisms of membrane transport and mechanisms of energy coupling to membrane transport.
Professor MacLeod

362-761D SOIL MICROBIOLOGY. (2 hours offered in alternate years, given in 1982-83). A consideration of recent advances in selected aspects of soil microbiology; autotrophs, nitrogen relationships, microfauna, soil-borne pathogens, antibiotics in soil, degradation of recalcitrant molecules, etc.
Professor Knowles

362-763D INVITATION LECTURES IN MICROBIOLOGY. (1 hour). Prominent scientists, actively engaged in research will be invited to present a series of lectures in the field of their research interest. The speakers and their topics will be chosen to complement the offerings of the permanent staff.

362-764A READING AND CONFERENCE. (2 hours). A course in which student presentations, taken from current literature, are concerned with various aspects of a central topic chosen for the term. Such presentations are designed to be informal and to generate student discussions. The central topic will change from term to term depending on the Staff coordinator and the students.
Staff

362-765B READING AND CONFERENCE (2 hours). Description as for 362-764A.
Staff

362-769D GRADUATE SEMINAR. (1 hour). All graduate students are required to present seminars on selected topics and to prepare and discuss reports from the current literature.
Staff

362-701D COMPREHENSIVE EXAMINATION. (See Faculty Regulations).
Staff

- **362-770A ENZYMOLOGY.** (2 hours, offered in alternate years, given in 1983-84. Prerequisite: Biochemistry I (332-211A) or equivalent). An examination of chemical bonding, enzyme kinetics, functional group modification within active sites and enzyme mechanisms as selected from current literature examples.
Professor Ingram

- **362-771B ENZYME REGULATION AND CELLULAR ORGANIZATION.** (2 hours, offered in alternate years, given in 1983-84. Prerequisite: Biochemistry I (332-211A) or equivalent). Allosteric kinetics, mechanisms and models. Control of amphibolic pathways. Cellular organization as illustrated by integrated metabolic control, compartmentalization and cell division processes.
Professor Ingram

A7 INSTITUTE OF PARASITOLOGY

Macdonald Campus
21111 Lakeshore Road,
Ste. Anne de Bellevue, PQ
Canada H9X 1C0
Telephone (514) 457-2000 ext. 222

STAFF

Professors – EUGENE MEEROVITCH *(Director)*; CHARLES E. TANNER
Associate Professors – GAETAN M. FAUBERT; MANFRED E. RAU
Assistant Professors – MARK A. CURTIS
Auxiliary Professors – ROY M. ANDERSON; PIERRE VIENS
Information Scientist – THERESA W. GYORKOS *(part time)*

The Institute of Parasitology is unique in that it is an institution devoted to the study of the phenomenon of parasitism in all its aspects. Current research involvement can be broadly categorized within several areas including general parasitology, the immunity of parasitic infections, ecological parasitology, and the epidemiology of parasitic diseases.

The Institute is housed in a separate building with its own animal quarters. Full laboratory equipment, electron microscope, ultracentrifuge, closed circuit T.V. and other modern facilities are available. There is a library of over 8,000 books, journals and monographs, and 40,000 reprints, in addition to excellent libraries on the Macdonald Campus and the main campus of McGill University.

Admission and Requirements

Candidates for either the M.Sc. or the Ph.D. degree should possess an honours degree or equivalent in a biological subject, or in medicine, or veterinary science. Previous experience in parasitology is less important than a sound background in quantitative and/or experimental biology.

Requirements for the M.Sc Degree

Candidates will be required to write a research proposal, and to successfully perform in an oral examination in the second term of their registration, to fulfill the requirements of 391-600D. While emphasis in the graduate program is on research, satisfactory completion of 391-601A and 391-603D in the first year of study, and 391-650D/391-651D in the second year is compulsory before thesis submission. Other coursework in related subjects may be required, depending upon the candidate's background and research orientation.

Requirements for the Ph.D. Degree

In the first year of graduate study submission of a written thesis proposal and satisfactory defence of it in an oral examination is required to fulfill 391-700D. 391-650D/391-651D and 391-703D are normally taken in the second year. While in the Institute, all students are required to participate in Seminar course 391-605N. A minimum of three years is necessary to complete the requirements.

The following advanced undergraduate courses are available for graduate students in Parasitology.

349-424A PARASITOLOGY. (2 lectures and one 3-hr. lab per week.) Systematics, morphology, biology and ecology of parasitic protozoa, flatworms, roundworms and arthropods with emphasis on economically and medically important species.
Professors Rau and Meerovitch

362-438A IMMUNOLOGY. (3 lectures per week.) A review of the host defence mechanisms with particular reference to antigen-antibody reactions. The nature of antigens and antibodies, the mechanism of antibody formation, polymorphism, hypersensitivity and transplantation are discussed.
Professor Tanner

177-345A PARASITISM AND SYMBIOSIS. (2 lectures and one laboratory/tutorial per week.) The biology of parasites and other symbiotic organisms is presented within a framework of contemporary ecological concepts. Evolution of the different forms of symbiosis is discussed in relation to the life cycle patterns characterizing the major taxonomic groups involved and dynamic properties of the host-parasite relationship are developed with reference to current models, giving special attention to the parasites and symbionts of fish and wildlife populations.
Professor Curtis

COURSES FOR HIGHER DEGREES

391-600D PRELIMINARY ORAL EXAMINATION FOR M.Sc. CANDIDATES
Supervisor and Staff

391-601A PARASITOLOGY FIELD COURSE. A 3-week intensive field course in the fall dealing with the ecological aspects of parasite transmission and host-parasite associations. This will involve the sampling of natural host populations with a view to characterizing their parasite fauna. Students will conduct and report on independent field projects dealing with selected parasitological topics.
Professor Rau

391-603D PERSPECTIVES IN PARASITOLOGY. Lectures, and tutorials with assigned reading on selected topics in Parasitology and related fields.
Staff

391-605N PARASITOLOGY SEMINAR. The speakers at these weekly meetings are students, professors and invited guests. Attendance and participation is compulsory for all the Institute students during the entire period of their residence, but M.Sc. or Ph.D. candidates are required to register only for one academic year, during which two presentations on topics in Parasitology must be given. Further presentations by the students may be on their research projects or related topics.

391-650D/391-651D ADVANCED PARASITOLOGY. Directed readings, group seminars and tutorials on various topics of current interest in parasitological research and related fields. 391-650D is for students oriented towards immunology and physiology while 391-651D is for those studying ecology and epidemiology. Certain topics are covered by sessions which may include both classes.
Staff

391-700D PRELIMINARY ORAL EXAMINATION FOR Ph.D. CANDIDATES.
Supervisor and Staff

391-703D Ph.D. COMPREHENSIVE EXAMINATION. An oral examination assessing the candidate's knowledge of general biology with specific emphasis on parasitology.
Staff

A8 DEPARTMENT OF PLANT SCIENCE

Macdonald Campus
21111 Lakeshore Road,
Ste. Anne de Bellevue, PQ
Canada H9X 1C0

STAFF

Professors – J. DAVID; W.F. GRANT; H.R. KLINCK; R.L. PELLETIER; W.E. SACKSTON; H.A. STEPPLER *(Chairman)*
Associate Professors – C. CHONG; N.C. LAWSON; J.F. PETERSON; A.K. WATSON
Assistant Professors – L. BROUILLET; D.J. BUSZARD; B.E. COULMAN; K.A. STEWART
Auxiliary Professors – M. FARIS: R.C. SINHA
University Lecturer – R. MARTIN

The Department of Plant Science provides for study in Agronomy, Horticulture, Plant Pathology and Genetics. Within these broad areas, research facilities – both field and laboratory – are available for investigations in plant breeding, crop physiology, crop management, processing of fruit and vegetable crops, plant ecology, the epidemiology and biology of plant diseases, the physiology of diseased plants, plant virology, cytogenetics, biosystematics, nematology, mycology, and weed biology.

An advisory committee is named for each student, having the responsibility for developing the program of study appropriate to the student's background and area of specialization.

REQUIREMENTS

Requirements for the M.Sc. Degree

Candidates are required to have either a B.Sc. (Agr.) degree or a B.Sc. degree in Biology with high standing or an equivalent qualification. Candidates must complete the course and research program established by their advisory committee. The program will normally consist of:

1. five single term courses or their equivalent;
2. one seminar course to be taken in each year of resident study;
3. the presentation of a thesis.

Those whose background is deemed inadequate for their chosen field of specialization may, in addition, be required to take selected undergraduate courses.

Plant Science research programs normally require two years for completion.

Mature students may study on a part-time basis.

Requirements for the Ph.D. Degree

The student should have an M.Sc. degree in an area related to the chosen field of specialization for the Ph.D. program. Students will follow the program of study established by their advisory committees. This program will consist of:

1. one seminar course to be taken in each year of resident study;
2. the Ph.D. Comprehensive examination, 367-701D, which must be passed before registering in Ph.D. 3;
3. the presentation of a thesis;
4. other courses deemed necessary for the chosen area of specialization.

Students who have taken their M.Sc. degrees at McGill University may be required to spend one term in study at another university.

COURSES FOR HIGHER DEGREES

367-602B FORAGE CROP EXPERIMENTATION. The conduct of forage experiments and methods of estimating parameters; current literature used as basis for discussion.
Professors Steppler and Coulman

367-603D POMOLOGY. The biology of pomological species, and the technology of orchard and small fruit production; major aspects, significant research, recent advances.
Professor Buszard

367-604D VEGETABLE CROPS. Discussion and reading assignments on the application of plant physiology and other sciences to the production of vegetable crops.
Professor Stewart

367-610A CYTOLOGY. An intensive study of the cell with emphasis on the nucleus, nuclear division, chromosome morphology, chromosome aberrations, euploidy and aneuploidy, and chromosome behaviour in hybrids.
Professor Grant

367-611B CYTOGENETICS. A study of cytological and genetical topics at an advanced level including polyploidy, apomixis and parthenogenesis, chromosome and gene replication, sex determination, and karyotype analysis.
Professor Grant

367-612B MICROBIAL GENETICS. An analysis of recent progress in the genetics of microorganisms including viruses, bacteria, yeasts, paramecia, algae and fungi.
Professor Grant

367-613A MUTAGENESIS AND RADIATION BIOLOGY. A study of the nature of mutations and the genetic effects of radiation and chemical mutagens of plants and animals and in crop improvement.
Professor Grant

367-614A ADVANCED PLANT BREEDING. The principles and practices of plant breeding with consideration of modern theoretical approaches and with special emphasis on the application of methods to cross-pollinated crop species.
Professor Lawson

367-615B CEREAL CROP IMPROVEMENT. A consideration of methods of improving productivity in self-pollinated crops with emphasis on cereal species. Attention is given to principles and practices in the development of improved cultivars, production management systems, genotype-environment interactions, physiological and nutritional aspects of cultivar improvement, and plant breeders' rights.
Professor Klinck

367-620A CROP PHYSIOLOGY; GROWTH AND DEVELOPMENT. A study of plant growth and development as related to the improvement of agronomic and horticultural crops, with emphasis on plant hormones, phytochrome, germination, growth, flowering, fruit development, and senescence. These topics will be reviewed in discussion sessions with each student contributing both oral and written presentations.

367-621B CROP PHYSIOLOGY; PLANT PROCESSES. A study of plant metabollic phenomena as related to the improvement of agronomic and horticultural crops, with emphasis on plant mineral nutrition, translocation, water relations, photosynthesis and respiration. (Course format as stated under course 367-620A).
Professor Stewart

367-622B BIOLOGICAL CONTROL OF UNDESIRABLE VEGETATION. Directed reading and discussion on the use of plant-feeding organisms and disease to reduce the density of undesirable vegetation in favour of more useful plant species. (Alternate years, offered in 1982-83).
Professor Watson

• **367-623B BIOCHEMISTRY AND PHYSIOLOGY OF HERBICIDES.** Mechanisms of penetration, translocation, selectivity and modes of action of herbicides and their interactions with the environment. (Alternate years, offered in 1983-84).
Professor Watson

367-624D FRUIT AND VEGETABLE PRESERVATION. Lectures and reading assignments on the fundamental processes and recent developments in the techniques of fruit and vegetable preservation.
Professor David

367-625A PLANT GROWTH AND DEVELOPMENT *IN VITRO*. A study of growth and development *in vitro* as related to the improvement of agronomic and horticultural crops with emphasis on hormonal, nutritional, and physical requirements. Current literature on meristem cloning, somatic hybridization, anther culture, organogenesis, and related aspects will be reviewed in discussion sessions with each student contributing both oral and written presentations.
Professor Chong

• **367-630B DISEASES OF FIELD AND FOREST CROPS.** (Alternate years, offered in 1983-84). The distribution, economic importance, symptoms, causes, and principles underlying control of diseases of major field and forest crops.
Professor Sackston

367-631B DISEASES OF HORTICULTURAL CROPS. (Alternate years, offered in 1982-83). The distribution, economic importance, symptoms, causes, and principles underlying control of diseases of major horticultural crops.
Professor Sackston

367-632B PLANT VIRUS DISEASES. A consideration of the major groups of viral plant pathogens, viroids, and mycoplasma-like organisms, their modes of transmission, and virus-vector relationships.
Professor Peterson

367-633B ADVANCED MYCOLOGY. Selected topics and recent advances in those aspects of mycology that have not been adequately covered in other courses. In addition to the lectures, there will be reading assignments, reports and seminar-type discussions.

367-634A NEMATOLOGY. A study of the morphology, anatomy, behaviour, distribution and taxonomy of nematodes from agricultural soils. Laboratory exercises and assignments are important components of this course.

367-635B NEMATODE DISEASES OF PLANTS. Nematodes and their environment, with emphasis on their biotic environment in relation to plants, plant diseases and plant disease control. This is a non-laboratory course which includes reading assignments, reports and term papers.

367-636D EPIDEMIOLOGY OF PLANT DISEASE. The assessment and economics of crop losses due to disease. The epidemiology of infectious plant diseases. This includes mathematical analysis and modeling and a study of the host, pathogen, and environmental factors involved in epidemics. Lectures, reading assignments, and term papers.
Professor Pelletier

367-637D PRINCIPLES OF PLANT PATHOLOGY. The histology and physiology of the inter-actions between host plants and their pathogens. Lectures, reading assignments, and term papers.
Professor Pelletier

367-638A or B HISTORY OF PLANT PATHOLOGY. A survey of the major events leading to a recognition of the cause and the control of plant diseases, together with a commentary on some of the effects of plant diseases on human society in the Middle East, Europe and North America.

367-650B ADVANCED SYSTEMATIC BOTANY. This course deals with the literature and philosophy of plant classification, processes of speciation in higher plants, sources and interpretation of data, biosystematic methods and plant nomenclature.
Professor Brouillet

367-660B DESIGN OF EXPERIMENTS. (Prerequisite: Mathematics 360-610A or equivalent). The design and analysis of experiments, with particular reference to agricultural research; factorials, incomplete block and lattice designs.
Professor Steppler

367-661C METHODS OF AGRONOMIC RESEARCH. A summer course to acquaint the student with the techniques of agronomic research in use in the experimental field.
Professor Steppler

367-662A or B PLANT PATHOLOGY RESEARCH METHODS. Preparation of culture media. Sterilization of media, glassware, equipment, etc. Methods of isolation, culture, and preservation of pathogens. Methods of inoculation, growth chamber techniques, etc.
Professors Pelletier and Sackston

367-663E PLANT VIROLOGY METHODS. A laboratory course, dealing with methods and techniques of virus characterization.
Professor Peterson

367-664D ADVANCES IN AGRONOMY. One-hour weekly discussion by students and staff on technical topics of current interest in agronomy. The organization of agronomic research and agronomic groups will be considered.
Professor Steppler

367-670D SPECIAL TOPICS I. Prescribed reading, conference and practical work on selected topics in the student's area of specialization.
Staff

367-671D, -672D, -673D, -674D SEMINAR IN AGRONOMY. One-hour weekly meetings; each student will present at least one seminar each term.
Professor Watson and Staff

367-675D, -676D, -677D, -678D SEMINAR IN HORTICULTURE. One-hour weekly meetings; each student will present at least one seminar each term.
Professor Stewart and Staff

367-679D, -680D, -681D, -682D SEMINAR IN PLANT PATHOLOGY. One-hour weekly meetings; each student will present at least one seminar each term.
Professor Sackston and Staff

367-683D, -684D, -685D, -686D, SEMINAR IN BOTANY AND GENETICS. One-hour weekly meetings; each student will present at least one seminar each term.
Professor Grant and Staff

367-690D, -691D RESEARCH HORIZONS IN PLANT SCIENCE. A series of seminars presented by invited speakers, staff and senior graduate students. The topics are selected to integrate the many fields of plant science.
Professor Steppler and Staff

367-701D DOCTORAL COMPREHENSIVE EXAMINATION

367-770D SPECIAL TOPICS II. Prescribed reading, conference and practical work on selected topics in the student's area of specialization.
Staff

A9 DEPARTMENT OF RENEWABLE RESOURCES

Macdonald Campus
21111 Lakeshore Road,
Ste. Anne de Bellevue, PQ
Canada H9X 1C0

STAFF

Professors – J.R. BIDER *(Chairman);* A.F. MacKENZIE
Associate Professors – M. CHEVRIER; J. GEROLS; A.R.C. JONES; J.D. MacARTHUR; J.F.G. MILLETTE; R. TITMAN
Assistant Professors – J. DOUCET; G. MEHUYS
Auxiliary Professors – D. BIRD; N.R. SEYMOUR; T.G. SMITH

The Department offers research facilities for studies in Soil Science and Wildlife Biology leading to the degrees of Master of Science and Doctor of Philosophy. Studies in community resource development and forest resources are possible under special arrangements.

REQUIREMENTS

Requirements for the M.Sc. Degree

Candidates are required to have a Bachelor's degree with high standing and a sufficient back-

ground in the appropriate basic sciences. Students will be required to make up undergraduate courses in soils, wildlife biology or the basic sciences when their background work is considered inadequate.

Some promising applicants may be admitted to a qualifying program if it is judged that their preparation in the subject selected is inadequate. Successful completion of a qualifying program does not guarantee admission to a degree program.

Candidates must complete a course and research program elaborated in consultation with their adviser. Course work will include at least one graduate course; two courses in statistics, 360-201A,B and 360-610A,B or their equivalent; and one seminar course to be taken in each year of residence. Candidates will present a thesis based on their research and defend it before an examining committee.

Requirements for the Ph.D. Degree

Candidates are normally required to hold an M.Sc. degree and will be judged primarily on their ability to conduct an original and independent research study.

The work for the degree will include course work as required by the research problem and the candidate's background, one seminar course to be taken in each year of residence, satisfactory performance in the Ph.D. comprehensive examination 372-701D and satisfactory completion of research work and the thesis (see Faculty regulations).

COURSES FOR HIGHER DEGREES

372-602D CHEMISTRY AND FERTILITY OF SOILS I. (2 lectures per week, one term). Discussion of significant research in chemistry, movement and uptake of plant nutrients; composition and properties of soil organic matter; analytical techniques.
Professor MacKenzie

- **372-603D CHEMISTRY AND FERTILITY OF SOILS II.** Discussion of significant research in soil chemistry and soil fertility; nutrient reactions, soil organic matter, analytical techniques, etc.
Professor MacKenzie

372-610D PEDOLOGY. (2 lectures per week, two term). Processes of profile development, principles of classification, comparative taxonomy, U.S. and Canadian Systems.
Professor Millette

- **372-630D SOIL MINERALOGY.** (2 lectures per week, one term). Structure and identification of minerals, weathering, properties of clay surfaces, absorption on clays, ion exchange.
Professor MacKenzie and Staff

372-631D ADVANCED SOIL PHYSICS. (2 lectures per week, one term). State and fluxes of matter and energy in the soil. Applications to movement of water, salts, nutrients; diffusion of gases; heat transfer. Discussion of significant research in soil physics.
Professor Mehuys

372-640D, -641D, -642D, -643D GRADUATE SEMINAR IN SOIL SCIENCE. One-hour, weekly meetings; discussion of selected topics in soil science and renewable resources. Seminars presented by invited speakers, staff, and graduate students. Students are expected to register for one of the graduate seminars in each year of their residence.
Professor Mehuys and Staff

372-701D Ph.D. COMPREHENSIVE EXAMINATION.
Staff and Others

375-605B WILDLIFE ECOLOGY. (2 class hours per week, one term). Discussion of problems in wildlife ecology with special reference to the research interests of staff and students involved.
Professor Doucet and Staff

375-640D, -641D, -642D, -643D GRADUATE SEMINAR IN WILDLIFE RESOURCES. One-hour, weekly meetings; discussion of selected topics in wildlife and renewable resources. Seminars presented by invited speakers, staff, and graduate students. Students are expected to register for one of the graduate seminars in each year of their residence.
Professor Bird and Staff

1982-83
FACULTY OF GRADUATE STUDIES AND RESEARCH

McGill University
Montreal

Section "B"
Biological Sciences

B1 - Bellairs Research Institute
B2 - Department of Biochemistry
B3 - Department of Biology
B4 - Department of Microbiology and Immunology
B5 - Institute of Oceanography
B6 - Institute of Parasitology
B7 - Department of Physiology
B8 - Department of Psychology
B9 - Wildlife Biology

The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

Legal Deposit I 82

B1 BELLAIRS RESEARCH INSTITUTE

The Bellairs Research Institute is situated on the St. James coast of the Island of Barbados. The Institute was established through the donation of the late Commander Carlyon Bellairs who left his estate on the island in trust to the University for the support of a research institute. The Institute emphasizes Marine Biology (see under Marine Sciences Centre) and Tropical Climatology (see under Geography). It also holds every other year a field course in Tropical Marine Ecology. Information relating to the Institute and its activities may be obtained from the Director, The Bellairs Research Institute, St. James, Barbados, West Indies, or from the Director of the Marine Sciences Centre.

B2 DEPARTMENT OF BIOCHEMISTRY

McIntyre Medical Sciences Building
3655 Drummond Street
Montreal, PQ
Canada H3G 1Y6

STAFF

Professors – R.M. JOHNSTONE *(Chairman);* M.J. FRASER; A.F. GRAHAM; E.A. HOSEIN; S. SOLOMON; T.L. SOURKES; L.S. WOLFE
Emeritus Professor – K.A.C. ELLIOTT
Associate Professors – R. BLOSTEIN: P.E. BRAUN: R.E. MACKENZIE: E.A. MEIGHEN: S. MILLWARD; W. MUSHYNSKI; J. SHUSTER: A.R. WASSERMAN
Assistant Professors – G. SHORE; J. SILVIUS; N. SONENBERG
Associate Members – M.K. BIRMINGHAM *(Psychiatry)* – L.F. CONGOTE *(Exp. Medicine);* D. DUPONT *(Pediatrics);* D. EDWARD *(Exp. Surgery);* W.C. GALLEY *(Chemistry);* L. GOODFRIEND *(Exp. Medicine);* R. HAND *(McGill Cancer Centre);* B.G. LIVETT *(Neurology);* H. PAPPIUS *(Exp. Neurochemistry);* J.F. PERDUE *(Lady Davis Institute);* P. ROUGHLEY (Shriners' Hosp.); C. SCRIVER *(Pediatrics);*

REQUIREMENTS

Students must submit with their applications for admission the results of the Graduate Record Examination (aptitude test, and achievement test in Biology or Chemistry), three letters of recommendation and a brief resumé indicating in as much detail as possible their particular field of interest for graduate study.

Students who have satisfactorily completed either an Honours degree in Biochemistry or its equivalent, as well as students with an equivalent degree in related disciplines (e.g. chemistry, physics, physiology, microbiology and biology) are eligible for admission to a graduate program in Biochemistry. Students must also be accepted by an approved research director in the Department, prior to registration for a graduate degree. The M.Sc. degree usually involves a two-year program. Following completion of one year of study in the Department, suitable candidates may be allowed to proceed directly to the Ph.D. degree depending on the ability they display in research and course work.

A program of courses for each student is determined by the individual research director in consultation with the Chairman of the Department's Graduate Advisory Committee. Students who have not obtained a suitable Honours degree or its equivalent will be required to take a qualifying year or otherwise make up for deficiencies.

Candidates who have obtained the M.Sc. degree with satisfactory standing from this department or who have completed an acceptable M.Sc. program at another university, enter the graduate program at the Ph.D. level.

Research projects deal with the biochemistry of erythrocytes, liver, brain, muscle, chloroplasts, endocrine organs, nucleic acids, peptides, lipids, and transport phenomena. These projects are conducted in departmental laboratories, the Biochemistry Laboratories of the Allan Memorial Institute of Psychiatry, the Laboratory of Experimental Neurochemistry of the Montreal Neurological Institute, the University Clinics of the Montreal General and the Royal Victoria Hospitals and in certain other laboratories.

There is no second language requirement for Ph.D. students, except where individual research directors wish to make such a requirement for their own students. Students whose mother tongue is not English must be proficient in English and may be required to take a remedial English course if the research director deems this necessary.

COURSES FOR HIGHER DEGREES

Graduate Courses

507-503A IMMUNOCHEMISTRY. (Prerequisites: 507-311 and 312 and permission of the instructor).
Professor Shuster
(University Clinic, Montreal General Hospital)

507-602B TOPICS IN MOLECULAR BIOLOGY.
(Admission by permission of instructor only).
Professor Millward

507-623B IMMUNOCHEMISTRY. (Admission by permission of instructor only).
Professor Shuster

Advanced Undergraduate Courses

507-311A CARBOHYDRATE AND LIPID METABOLISM. (Prerequisites: Biology 177-200A, 201B; Corequisites: Biology 177-301A, 177-302B).
Professor Braun and Staff

507-312B REGULATION OF NITROGEN METABOLISM. (Prerequisites: Biology 177-200A, 201B, Biochemistry 507-311A).
Professor Johnstone and Staff

507-404B BIOPHYSICAL CHEMISTRY. (Prerequisites: Chemistry 204A,B, 214B or equivalent; Chemistry 180-313A recommended. This course is also listed as Chemistry 180-404B).
Professors Meighen and Galley (Chemistry)

507-450B PROTEIN STRUCTURE AND FUNCTION. (Prerequisites: Biochemistry 507-311A, 312B and/or sufficient organic chemistry).
Professors Fraser and Meighen

507-454A NUCLEIC ACIDS. (Prerequisites: Biochemistry 507-311A, 312B or permission of the instructor).
Professor Millward

507-455B NEUROCHEMISTRY. (Prerequisites: Biochemistry 507-311A, 312B).
Professors Sourkes, Wolfe and Staff

507-456B BIOCHEMISTRYOF MEMBRANES (Prerequisites: Biochemistry 507-311A, 312B Chemistry 180-214B or equivalent, or by consent of the instructors).
Professors Braun and Blostein

SEMINARS

There are three series of seminars. The *Junior Seminar* consists of a presentation by the students of the background, experimental approach, and significance of their proposed research. This seminar is required of all M.Sc. students in the department who plan to proceed to the Ph.D. degree as well as by students entering at the Ph.D. level. The *Senior Seminar* consists of a presentation by all later year Ph.D. candidates on their research. *Departmental Seminars* consist of presentations by members of the staff and visiting scientists outlinging their work with their collaborators. Graduate students are required to attend all the above seminars and certain informal seminars, and are encouraged to attend relevant scientific meetings.

B3 DEPARTMENT OF BIOLOGY

Stewart Bology Building
1205 Avenue Docteur Penfield
Montreal, PQ
Canada H3A 1B1

STAFF

Professors – W.G. BOLL: E.R. BOOTHROYD: P.S. DIGBY; S.P. GIBBS: E. KAFER: J. KALFF: W. LEGGETT *(Chairman);* R.E. LEMON *(on leave);* G.A. MACLACHLAN; J. MARSDEN; B.B. MUKHERJEE; F. RIGLER; R. SATTLER; C.M. WILSON

Associate Professors – G. BELL; B.P. BRANDHORST: A.H. BUSSEY; R. CHASE: M.E. GOLDSTEIN; P. HECHTMAN; D.L. KRAMER; LECHOWICZ *(on leave);* R.L. LEVINE; V.M. PASZTOR: R. PETERS; R.J. POOLE *(on leave);* R. SINCLAIR: K. SITTMANN; J.L. SOUTHIN; D. TRASLER H. TYSON: D.P.S. VERMA *(on leave);*

Assistant Professors – G. BROWN: D. BOUCHER; L. LEFEBVRE: K.M. NEWROCK; Y. NISHIOKA: G. POLLACK: D. ROFF

OTHER McGILL STAFF WITH GRADUATE STUDENTS OR TEACHING RESPONSIBILITIES IN THE BIOLOGY DEPARTMENT

R.L. CARROLL *(Redpath Museum);* M.A. CURTIS *(Inst. of Parasitology);* M.J. DUNBAR *(Marine Sciences);* F. GLORIEUX *(Shriners Hospital);* W.F. GRANT *(Agriculture, Macdonald College);* S.B. HILL *(Dept. of Entomology);* L. KLEIMAN *(Lady Davis Institute);* J. LEWIS *(Redpath Museum);* L. PINSKY *(Paediatrics);* H. REISWIG *(Redpath Museum); (on leave);* D. ROSENBLATT *(Paediatrics);* C.R. SCRIVER *(Paediatrics)*

The Department of Biology has available a brochure describing the admission and degree requirements for the M.Sc. and Ph.D. in Biology. A summary of the research interests of each staff member is included. Enquiries concerning admission should be directed to the Secretary of the Graduate Training Program, Department of Biology, 1205 Avenue Docteur Penfield, Montreal, Quebec, H3A 1B1.

The research interests of the department are focussed on human and plant genetics, evolutionary and plant ecology, limnology, plant morphogenesis, animal behaviour, neurobiology, and cellular, molecular and developmental biology. There are also individual staff members whose work lies outside these areas. Courses available include specialized senior undergraduate courses (see **Science Faculty Announcement**) as well as those restricted to graduate students.

FACILITIES:

The modern Stewart Biology Building is very well equipped for graduate training and research. Its resources are extended by affiliation with other organizations such as the Redpath Museum; the Institute of Oceanography; the Group Interuniversitaire de Recherches Océanographiques du Québec (GIROQ); Macdonald College; The Montreal Neurological Institute, the Jewish General, Montreal General, Montreal Children's and Royal Victoria Hospitals. Field research facilities include the Mont St. Hilaire Field Station (Québec); the Huntsman Marine Laboratory (New Brunswick); the Subarctic Research Laboratory (Québec); the Bellairs Research Institute (Barbados); the Memphremagog Field Station (Québec) and the Montebello Field Station (Québec). McGill's library holdings in Biology are among the world's best.

ADMISSION:

An overall grade average of B (McGill GFA of 2.8) is the minimum requirement for entrance into graduate studies at McGill. Biology students are usually accepted only if they have a GPA of 3.0 or better. Applicants having a GPA near the minimum will be admitted only if supporting letters or other documents are very favorable. Very well qualified students may be allowed to register in the Ph.D. program directly, without first registering for a Master's degree.

Before students can be recommended to the Faculty of Graduate Studies for acceptance the Department must ensure that there are suitable thesis directors available, and that adequate funding is available for personal and research expenses. Prospective graduate students are encouraged to contact a staff member with whom they wish to study before applying for admission. If a favourable response is indicated this should be noted on the application as it speeds the review process. A formal application may be submitted even in the event of a negative reply from individual professors. In such cases the formal application will be circulated automatically to all members of the Department having research interests in the subject area specified on the application.

SUPERVISORY COMMITTEE (SC):

The aim of the graduate program is to provide students with individual depth of experence in their chosen field and sufficient background in basic science. This should prepare students to continue self-education and to keep in the forefront of their changing field throughout their research career. To achieve this goal individual attention and a tailor-made program is necessary for each student.

A Supervisory Committee (SC) with at least three members must be approved for every graduate student by the Graduate Training Committee (GTC) before the end of the first term. The SC is chaired by the Thesis Director. The Department Chairman is a member ex officio. Two additional SC members are recommended by the Thesis Director to the GTC.

The M.Sc.

In Biology the M.Sc. degree is considered to be a research degree and the candidate must present a thesis which represents an original contribution to knowledge. The nature of the M.Sc. degree varies considerably throughout the University and it should be clear that requirements in Biology are more stringent than the minimal requirements laid down by the Faculty of Graduate Studies and Research. Three terms of residence study at McGill University are required for the **Master's** degree. The Biology Department does offer a summer registration so that the residence requirement can be complete in twelve months if desired. All M.Sc. students in Biology are required to take the equivalent of one full senior course (two half-courses), and are encouraged to take more. A great range of relevant courses is offered in Biology and in other sciences and medicine at McGill. A graduate pass (65% or better) is mandatory of all courses in Graduate Studies. Students may take additional courses, (not required for degree purposes), however, they must maintain an overall average of "B" or better (including marks in courses that are not required).

The Ph.D.

The Ph.D. is a research degree. It represents high scholastic attainment at original research in a specific field, demonstrated by independent and original research and an understanding of related subjects. Students are encouraged to develop their teaching skills, and they are expected to give seminars and to take part in discussions and journal groups. In addition, students may be required by their Thesis Directors to acquire a reading knowledge of a foreign language and should enquire about this potential requirement at the beginning of the program. Candidates for the Ph.D. degree must follow a course of at least three years resident study (beyond a Bachelor's degree) in an institution of higher learning and at least two of these years must be spent at McGill University. In practice most Ph.D. students complete their degrees in four or five years. All Ph.D. students must have taken as graduate students four, one-term advanced courses (i.e. courses numbered 300 or higher) beyond those taken in a B.Sc. program at McGill or elsewhere, plus any other courses the SC considers necessary for background knowledge and suitable training in Biology. A graduate pass (65%) is essential for all courses. **Ph.D. Qualifying Examination:** New Ph.D. students must pass the Oral Qualifying Examination (course 177-700D) no later than 15 months

from the date of admission to the program. Students who transfer from the Master's program, or who enter the Ph.D. with a McGill M.Sc. degree must take the exam within 8 months. All Ph.D. students will deliver an ungraded seminar (177-702D) on their research at some time during the academic session (September to April) towards the end of their studies.

COURSES FOR HIGHER DEGREES

General Courses

177-650, 177-651, 177-652 (A,B or C). RECENT ADVANCES IN BIOLOGY. Directed reading, seminar and discussion courses in various subjects of current interest in biological research. These courses are intended for students working individually or in classes on selected areas of interest under the supervision of one or more staff members. Content and form are flexible to allow the department to meet specific student demands or needs. Such courses are arranged by consultation with individual staff.

177-655, 177-656 (A,B or C). LABORATORY PROJECTS AND TECHNIQUES. Directed training in selected methods used in various areas of current interest in biological research. These courses are intended for individuals or classes working in selected areas of interest under the supervision of one or more staff members. Form and content is flexible to allow the department to meet specific student demands and needs. Each course is arranged by consultation with individual staff.

177-700D DOCTORAL QUALIFYING EXAMINATION. This will be an oral qualifying examination arranged by members of the candidate's Supervisory Committee within 15 months of registration.

177-702D Ph.D. SEMINAR. Doctoral candidates are required to give a public oral presentation of their major results before submitting a thesis.

LANGUAGE EXAMINATIONS. At the discretion of their Supervisory Committee doctoral candidates may be required to demonstrate facility in a foreign language.

Specific Courses

177-500C ADVANCED TECHNIQUES IN CELL AND MOLECULAR BIOLOGY. (1 lecture and 6-8 laboratory hours per day, during a 3-4 week summer session; Prerequisites: 177-301A,B; 302A,B and permission of the instructor). This course is intended for selected cell and molecular biology honours and graduate students. Techniques used are those involved in molecular studies of transcriptional and translational regulation in eucaryotic cells, e.g. nucleic acid and protein synthesis *in vitro,* nucleic acid hybridization, cell fractionation. The methods for the synthesis and cloning of specific genes will be discussed.
Professor Verma

177-524B TOPICS IN MOLECULAR BIOLOGY. (Prerequisites: 177-200A and 201B (or 201D), 303A and one of 310B, 318B, 320B or 322A; or permission of instructor). This seminar will consider the most recent literature in the fields of molecular genetics and molecular biology of development. The main topics will include gene structure and the regulation of gene expression in eucaryotic organisms, especially during cellular differentiation.
Professors Käfer, Newrock and Verma

177-575A ADVANCES IN POPULATION GENETICS. (1 conference/seminar per week; Prerequisites: 177-373A, 177-325A or 177-372B). Discussion of recent advances in genetics relevant to population biologists in ecology and human genetics.
Professors Sittmann and Tyson

177-587B DEVELOPMENTAL NEUROBIOLOGY. 3 hours lecture; Prerequisites: 177-303A, 177-386A or 204-308D or 552-211D. Examination of the origin, development and maintenance of nerve cells and nervous systems.
Professor Levine

177-588A ADVANCED NEUROBIOLOGY. (2 hours seminar; Prerequisite: 177-386A and 177-387B or permission of instructor). Seminar discussion of neurosecretion, with emphasis on studies made on invertebrates and lower vertebrates.
Professor Marsden

177-595A ADVANCED SEMINAR IN BEHAVIOUR. (2 hour seminars; Prerequisites: 177-391A or 392B or equivalent and permission of instructor). A graduate level seminar concerned with animal behaviour. Selected topics include sensory mechanisms of communication, social behaviour and organization, animal orientation, physiological correlates of behaviour, and the sequential and temporal organization of behaviour. The emphasis will be on studies having a zoological perspective.
Professors Lemon and Pollack

177-596A SEMINAR IN BEHAVIOURAL ECOLOGY. (Prerequisite: permissionof instructors). A graduate level seminar course concerned with ecological and evolutionary perspectives on behaviour. Potential topics include aspects of altruism, grouping, mating systems, feeding strategies, antipredator behaviour habitat selection and the inheritance of behaviour.
Professors Lemon and Bell

177-617B DEVELOPMENTAL MAMMALIAN GENETICS. (3 hours; lectures and seminars). An advanced course for final year students where the main emphasis will be on experiments where gene differences altering development or environmentally-induced differences in embryonic development throw light on the processes of normal mammalian development. Graduate students will be given additional assignments.
Professor Trasler

177-629B PHYSIOLOGICAL ECOLOGY OF PLANT REPRODUCTION. (3 credits; 2 hours lectures, 3 hours laboratory; Prerequisite: 177-205D; -308B). An advanced consideration of the structural and physiological adaptations of plants to their environment with emphasis on reproduction. The laboratory introduces students to the measurement of relevant physiological and microenvironmental parameters.
Professor Lechowicz

177-632A LIMNOLOGY. (2 hour lectures, 3 hours laboratory; Prerequisite: 177-205D, 206D, or permission of instructor). A study of the physical, chemical and biological properties of fresh-water, with emphasis on nutrient cycling and prediction.
Professor Kalff

177-633D PREDICTIVE ECOLOGY. (3 credits; 1 hour lecture, 1 hour seminar or research; Prerequisite: 177-308B or -304A or permission of instructor). An introduction to empirical ecology stressing the observed relations among ecological variables as the necessary basis for applied ecology. Lectures given in the early part of the year provide a necessary background for the pursuit of a major program of library research plus a set of seminars and consultations. (Not open to students who have taken 177-358B).
Professor Peters

177-642D BIOLOGICAL OCEANOGRAPHY. (3 hour lectures, several 3 hour laboratory periods; Pre- or Corequisites: 177-308B, 348D). An introduction to the physical and chemical factors of the marine environment, the ecological divisions of the ocean, history and methods of marine research. An ecological account of marine populations in relation to their physical and chemical environment; marine plankton and production processes, marine pollution. Additional assignments will be required of graduate students.
Professors Dunbar and Lewis and Marcotte (Institute of Oceanography)

177-565B SEMINAR IN PLANT BIOLOGY. (2 hours seminar; Prerequisite: For advanced undergraduates and graduate students, with permission of instructor.) A seminar focussing each year on a different theme related to the evolutionary biology of plants. Among the themes to be considered are nitrogen metabolism, reproductive biology, regulation of plant productivity, and photosynthesis. An evolutionary perspective will be used to integrate the molecular, genetic, physiological and ecological aspects of the theme. Emphasis will be placed on recent advances in the field and analysis of primary sources.
Professor Boucher and Staff

177-671A HUMAN BIOCHEMICAL GENETICS: INTERMEDIARY METABOLISM. (3 hours lectures; Prerequisites: 177-200A and 201B (or 201D), 274A or 202B). This course will explore the biochemical basis of human individuality by the study of mutations affecting the metabolism and transport of small molecules. (Given in alternate years. Not open to students who took 177-676B in 1980 or before).
Professor Hechtman and staff

177-676B HUMAN BIOCHEMICAL GENETICS: MACROMOLECULES. (3 hours lectures; Prerequisites: 177-200A and 201B (or 201D), 274A or 202B). This course will explore the biochemical basis of human individuality by the study of mutations affecting the structure and function of macromolecules such as haemoglobin, collagen, receptor and transport proteins. (Given in alternate years).
Professor Hechtman and staff

177-680B TECHNIQUES IN ELECTRON MICROSCOPY. (8 hours daily for four weeks; Prerequisite: Permission of instructor). An intensive course in the techniques of electron microscopy for students who intend to do research on cell ultrastructure.
Professor Gibbs

177-693B ADVANCES IN ANIMAL BEHAVIOUR. (4 hours seminar; Prerequisite: Permission of instructor). A senior course considering in depth topics of current interest, which may range from physiological to ecological aspects of behaviour according to the interests of the class.
Professor Lefebvre

B4 DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

3775 University Street
Montreal, PQ
Canada H3A 2B4

STAFF

Professors – I.W. DEVOE *(Chairman);* J. GORDON: H.G. ROBSON: W. YAPHE.
Associate Professors – Z. ALI-KHAN: M.G. BAINES: E.C.S. CHAN; L. KAPICA; J.

MEAKINS: J. MENDELSON; E. MILLS: R.A. MURGITA: G.K. RICHARDS: R. SIBOO; M. WAINBERG.

Assistant Professors - N.H. ACHESON; F.S. ARCHIBALD: D. BRIEDIS: J.W. COULTON; A.F. DOSS; M.S. DUBOW; J.A. HASSELL: B.E. HOLBEIN; L. MARTINEZ: J. PORTNOY.

Lecturers - M.F.Z. BLANC; B. CLECNER: E. KOLYVAS; D. PORTNOY; R. SAGINUR; T. SALO.

Associate Members - N. CHRISTOU; R. LALONDE: C.K. OSTERLAND: A.R. POOLE: H. RODE.

REQUIREMENTS

Candidates are required to hold a B.Sc. degree in biology, biochemistry, or another related discipline; those with the M.D., D.D.S. or D.V.M. degrees are also eligible to apply.

Requirements for the M.Sc. Degree

The following requirements must be satisfied.

(1) Students must register for and satisfactorily complete the requirements of courses 528-602, 528-703 and two of the following courses: 528-704A, 528-705B, 528-706A and 528-707B (see list below).
(2) Other courses may be required to strengthen the student's background.
(3) A satisfactory M.Sc. thesis must be presented.

• Requirements for the M.Sc.A. Degree

The principal aim is to provide specialized training in Applied Medical Microbiology and Immunology. Candidates must satisfy requirements (1) and (2) for the conventional M.Sc. degree. In addition, applied laboratory research projects must be pursued as a major part of the overall program. The results of each project form the basis of a formal report which is reviewed by the department staff.

Requirements for the Ph.D. Degree

Normally those working toward the Ph.D. degree are required to hold an M.Sc. degree in a biological science or biochemistry. However, highly qualified students enrolled in the departmental M.Sc. program may be permitted to change to the Ph.D. program provided they meet its standards. Candidates will be judged principally on their research ability and on the presentation of a satisfactory thesis. Students must also register for and satisfactorilycomplete the requirements of courses 528-701D, 528-702, 528-703 and three of the following courses: 528-704A, 528-705B, 528-706A and 528-707B (see list below). Other courses may be required to strengthen the student's background.

Graduate Courses

528-602A,B,D – GRADUATE SEMINARS – M.Sc. Students (presentation of one seminar topc per day and attendance at all graduate seminars).

• **528-603H – PRACTICAL DIAGNOSTIC MICROBIOLOGY AND IMMUNOLOGY (offered o M.Sc.A. students only).**

• **528-605D – ADVANCED INDEPENDENT RESEARCHPROJECT IN APPLIED MICROBIOLOGY AND IMMUNOLOGY (offered to M.Sc.A. students only).**

528-701D – COMPREHENSIVE EXAMINATION FOR Ph.D. CANDIDATES.

528-702A,B,D – GRADUATE SEMINARS – Ph.D. Students (presentation of one seminar topic per year and attendance at all graduate seminars).

528-703A,B,D – CURRENT TOPICS IN MICROBIOLOGY AND IMMUNOLOGY (discussion groups with guest speakers).

528-704A – READING AND CONFERENCE - A course in which student presentations, taken from current literature, are concened with various aspects of a central topic chosen for the term. Such presentations are designed to be informal and to generate student discussions. The central topic will change from term to term depending on the staff coordinator and the students.

528-705B – READING AND CONFERENCE - Description as for 528-704A.

528-706A – READING AND CONFERENCE - Description as for 528-704A.

528-707B – READING AND CONFERENCE - Description as for 528-704A.

B5 INSTITUTE OF OCEANOGRAPHY

3620 University Street
Montreal, PQ
Canada H3A 2B2

STAFF

Professors – M.J. DUNBAR *(Biology);* M.P. LANGLEBEN *(Physics);* J.B. LEWIS *(Director, Redpath Museum); (Vice Chairman of Oceanography);* E.R. POUNDER *(Physics);*
Associate Professors – R.G. INGRAM *(Chairman);* B.F. d'ANGLEJAN: H.M. REISWIG *(Redpath Museum);* F. SANDER *(Director, Bellairs Research Institute)*
Assistant Professor – B.M. MARCOTTE
Associate Members – M.E. GOLDSTEIN *(Biology);* ROGER KNOWLES *(Microbiology);* E.W. MOUNTJOY *(Geological Sciences);* R. HESSE *(Geological Sciences);* S. ORVIG *(Meteorology)*

Graduate students will take such courses, including cognate courses in other departments, as are considered necessary for their training and for the development of their particular fields of specialization. All students are expected to take core courses required by the department. Primary emphasis for both the M.Sc. and Ph.D. degrees is placed upon research and thesis presentation. The comprehensive examination for Ph.D. candidates usually takes place at the end of the second year of study; it covers the whole field of marine science but allows for the specialized interests and training of each student in Botany, Zoology, Microbiology, Physics or Geology.

Students are accepted on the basis of a 3.0 Cumulative Grade Point Average in an appropriate subject, or high standing in general science; a qualifying year in addition to the minimum degree requirement may be necessary, at the discretion of the Chairman. Decisions on acceptance are made by 31 March and 31 October of each year for the Fall and Winter terms respectively. It is preferable to enter in the Fall.

The Institute of Oceanography is interdepartmental in scope, emphasizing the interdisciplinary nature of Oceanography. Excellent laboratory and library facilities are available for research, and opportunities for field work exist in the Arctic, the estuary of the St. Lawrence river, the Gulf of St. Lawrence, the Canadian Eastern Seaboard, and at the Bellairs Research Institute in Barbados. The special research interests of the Centre include the physics of sea ice, the energy exchange between atmosphere and hydrosphere, marine climatology, the physical oceanography, marine geology and geochemistry of coastal waters, growth and life cycles of marine organisms, marine productivity and marine biogeography.

The Redpath Museum of McGill University offers teaching and research facilities in marine biology and keeps extensive plankton collections.

COURSES FOR HIGHER DEGREES

Advanced Undergraduate Courses

198-309A DESCRIPTIVE OCEANOGRAPHY. (3 hours). Major physical and chemical properties of sea water; methods of measurements, space and time distribution. The geostraphic approximation and the dynamic method. General features of the oceanic circulation.
Professor d'Anglejan

198-319B DYNAMIC OCEANOGRAPHY. (3 hours). Equations of motion, geostrophy, diffusive processes, boundary layers, wind-driven circulation, thermohaline circulation, gravity waves, Kelvin waves, tides in oceans and estuaries, general field techniques.
Professor Ingram

177-442D BIOLOGICAL OCEANOGRAPHY. (3 hour lectures and labs.). Physical and chemical parameters of the environment and their influence on marine life; ecological divisions of the ocean; descriptions of marine life; plankton biology and biogeography; history and methods of marine research; ecology of benthic organisms; primary and secondary production in the ocean; marine fisheries. marine microbiology; pollution; migration.
Professors Dunbar, Lewis and Lalli

Graduate Courses

395-537B ADVANCED INVERTEBRATE ZOOLOGY (3 hours). Descriptions of selected marine invertebrate taxa. Functional morphology, ecology and evolution. Feeding mechanisms; reproductive patterns; interactions with other marine organisms; laboratory techniques.
Professors Marcotte and Reiswig

395-591D ADVANCED MARINE ECOLOGY. (2 hour seminar). Primary and secondary production; physiological ecology, population dynamics, distribution analysis, and diversity of marine organisms.
Professor Marcotte

395-620D READING COURSE IN PHYSICAL OCEANOGRAPHY.
Professor G. Ingram

395-639A TROPICAL MARINE ECOLOGY. (2 hour lectures and labs.). The ecology of marine organisms and marine communities of tropical oceans.
Professor Lewis

395-660D SEMINAR IN GENERAL OCEANOGRAPHY. (2 hours). Advanced seminar course on research in salt water environments, with emphasis on contemporary work. Discussion of the original literature, recent advances and basic theory.

Staff

395-692A ESTUARIES. (3 hours). Classification of estuaries; mixing processes in stratified fluids; salt balance; dynamic balance; flushing; circulation theories; application to the distribution of other water properties, such as nutrient, suspended matter and pollutants; measurement techniques.

Professor Ingram

395-696A SEMINAR COURSE IN PHYSICAL OCEANOGRAPHY. (2 hours). Theoretical aspects of oceanic, estuarine and near-shore dynamics.

Professor Ingram

395-697B MARINE GEOLOGY AND GEOCHEMISTRY. (3 hours). Geochemistry of pelagic deposits in relation to terrigenous sources, life processes and sea water composition. Deep sea stratigraphy; methods of correlation; the sedimentary record.

Professor d'Anglejan

395-698B TOPICS IN OCEANOGRAPHY. (3 hours). Interdisciplinary studies of advanced topics selected by both staff and students, including: waves and tides, estuaries, short and long term cycles, factors controlling the vertical distribution of organisms, particulate matter and sedimentation.

Staff

395-721D SEDIMENTS AND MARINE GEOLOGY. (2 hour seminar lectures and assignments). Classical and recent research concerning principles of sedimentation, sedimentary environments including deltas, tidal flats, continental shelf and slope, geosynclines, ocean basins, submarine canyons, ocean currents, turbidity currents, sediment geochemistry, reefs, ocean structure.

Professors d'Anglejan, Hesse and Mountjoy

B6 INSTITUTE OF PARASITOLOGY

Macdonald Campus
21111 Lakeshore Road
Ste. Anne de Bellevue, PQ
Canada H9X 1C0

Telephone (514) 457-2000 ext. 222

STAFF

Professors – EUGENE MEEROVITCH *(Director)*; CHARLES E. TANNER
Associate Professors – GAETAN M. FAUBERT; MANFRED E. RAU
Assistant Professors – MARK A. CURTIS
Auxiliary Professors – ROY M. ANDERSON; PIERRE VIENS
Information Scientist – THERESA W. GYORKOS *(part time)*

The Institute of Parasitology is unique in that it is an institution devoted to the study of the phenomenon of parasitism in all its aspects. Current research involvement can be broadly categorized within several areas including general parasitology, the immunity of parasitic infections, ecological parasitology, and the epidemiology of parasitic diseases.

The Institute is housed in a separate building with its own animal quarters. Full laboratory equipment, electron microscope, ultracentrifuge, closed circuit T.V. and other modern facilities are available. There is a library of over 8,000 books, journals and monographs, and 40,000 reprints, in addition to excellent libraries on the Macdonald Campus and the main campus of McGill University.

Admission and Requirements

Candidates for either the M.Sc. or the Ph.D. degree should possess an honours degree or equivalent in a biological subject, or in medicine, or veterinary science. Previous experience in parasitology is less important than a sound background in quantitative and/or experimental biology.

REQUIREMENTS FOR THE M.Sc. DEGREE

Candidates will be required to write a research proposal and to successfully perform in an oral examination in the second term of their registration, to fulfill the requirements of 391-600D. While in the Institute, all students are required to register and participate in the Seminar course 391-605N. While emphasis in the graduate program is on research, satisfactory completion of 391-601A and 391-603D in the first year of study, and 391-650D/391-651D in the second year is

compulsory before thesis submission. Other coursework in related subjects may be required, depending upon the candidate's background and research orientation.

REQUIREMENTS FOR THE Ph.D. DEGREE

In the first year of graduate study, submission of a written thesis proposal and satisfactory defence of it in an oral examinationis required to fulfill 391-700D. 391-650D/391-651D and 391-703D are normally taken in the second year. While in the Institute, all students are required to participate in Seminar course 391-605N. A minimum of three years is necessary to complete the requirements.

The following advanced undergraduate courses are available for graduate students in Parasitology.

349-424A PARASITOLOGY. (2 lectures and one 3-hr. lab per week.) Systematics, morphology, biology and ecology of parasitic protozoa, flatworms, roundworms and arthropods with emphasis on economically and medically important species.
Professors Rau and Meerovitch

362-438A IMMUNOLOGY. (3 lectures per week.) A review of the host defence mechanisms with particular reference to antigen-antibody reactions. The nature of antigens and antibodies, the mechanism of antibody formation, polymorphism, hypersensitivity and transplantation are discussed.
Professor Tanner

177-345A PARASITISM AND SYMBIOSIS. (2 lectures and one laboratory/tutorial per week.) The biology of parasites and other symbiotic organisms is presented within a framework of contemporary ecological concepts. Evolution of the different forms of symbiosis is discussed in relation to the life cycle patterns characterizing the major taxonomic groups involved and dynamic properties of the host-parasite relationship are developed with reference to current models, giving special attention to the parasites and symbionts of fish and wildlife populations.
Professor Curtis

COURSES FOR HIGHER DEGREES

391-600D PRELIMINARY ORAL EXAMINATION FOR M.Sc. CANDIDATES
Supervisor and Staff

391-601A PARASITOLOGY FIELD COURSE. A 3-week intensive field course in the fall dealing with the ecological aspects of parasite transmission and host-parasite associations. This will involve the sampling of natural host populations with a view to characterizing their parasite fauna. Students will conduct and report on independent field projects dealing with selected parasitological topics.
Professor Rau

391-603D PERSPECTIVES IN PARASITOLOGY. Lectures, and tutorials with assigned reading on selected topics in Parasitology and related fields.
Staff

391-605N PARASITOLOGY SEMINAR. The speakers at these weekly meetings are students, professors and invited guests. Attendance and participation is compulsory for all the Institute students during the entire period of their residence, but M.Sc. or Ph.D. candidates are required to register only for one academic year, during which two presentations on topics in Parasitology must be given. Further presentations by the students may be on their research projects or related topics.

391-650D/391-651D ADVANCED PARASITOLOGY. Directed readings, group seminars and tutorials on various topics of current interest in parasitological research and related fields.391-650D is for students oriented towards immunology and physiology while 391-651D is for those studying ecology and epidemiology. Certain topics are covered by sessions which may include both classes.
Staff

391-700D PRELIMINARY ORAL EXAMINATION FOR Ph.D. CANDIDATES.
Supervisor and Staff

391-703D Ph.D. COMPREHENSIVE EXAMINATION. An oral examination assessing the candidate's knowledge of general biology with specific emphasis on parasitology.
Staff

B7 DEPARTMENT OF PHYSIOLOGY

McIntyre Medical Sciences Building
3655 Drummond Street
Montreal, PQ
Canada H3G 1Y6

STAFF

Professors – R.I. BIRKS; H.K. CHANG; T.M.S. CHANG; B.A. COOPER; P. GOLD; K. KRNJEVIC *(Chairman);* M. LEVY; F.C. MacINTOSH; G. MANDL; G. MELVILL JONES; J. MILIC-EMILI; C. POLOSA; K. RUF

Associate Professors – M.W. COHEN; R. DYKES; M.M. FROJMOVIC; L. GLASS; P. KONGSHAVN; W.S. LAPP; M. MACKEY; P. NOBLE; J.S. OUTERBRIDGE; P. PONKA; P. SEKELJ; A WECHSLER; R.L. WILLIAMS

Assistant Professors – A.S. CHAWLA; J. COMMISSIONG: E. COOPER; R. DOUGLAS; M. GLAVINOVIC; T. HAKIM; J. HENRY; R.E.

KEARNEY; N. LAKE; J. MORTOLA; D. ROY; B. SEGAL; A. SHRIER; T. TRIPPENBACH; D. WATT; P. WELDON

Lecturers - E. CHIRITO; C. COLE; G. TOLIS

Associate Members - A. AGUAYO *(Medicine);* C. CHAN *(Physical and Occupational Therapy);* R. FAROOKHI *(Obs. & Gyn.)* B. DUBROVSKY *(Psychiatry);* S.O. FREEDMAN *(Medicine);* R. GAGNON *(Medicine);* H. GOLDSMITH *(Medicine);* C.A. GORESKY *(Medicine);* A. GRASSINO *(Univ. of Montreal, Medicine);* M. KATZ *(Medicine);* G. KOSTOPOULOS *(M.N.I.);* P. MACKLEM *(Medicine);* B. PEARSON MURPHY *(Medicine);* B. POSNER *(Medicine);* L. RENAUD *(Neurology);* S. ROSSIGNOL *(Univ. of Montreal, Physiology);* C. ROUSSOS *(Medicine);* M.R. SAIRAM *(Inst. de Recherches Clin.);* J.F. SEELY *(Medicine);* A. SNIDERMAN *(Medicine)*

Auxiliary Professor - V. KLISSOURAS

ADMISSION

a) The Physiology Department offers training leading to the M.Sc. and Ph.D. degrees. Admission to the Graduate Program is based on an evaluation by the Graduate Students' Admissions Committee, and upon being accepted by a research director. Prospective students are encouraged to contact research directors individually. A list of the members of the academic staff and their research interests is available in the office of the Administrative Assistant, McIntyre Medical Building, Room 1022.

b) THE M.Sc. PROGRAM

Candidates for the M.Sc. should hold a B.Sc. degree with Honours in Physiology, or should have completed some other appropriate undergraduate program. Students with an inadequate background may be required to take recommended courses during a Qualifying Program.

The first year of the M.Sc. program consists of the following:

1) Laboratory work.
2) Presentation of a seminar based on research performed during the first year.
3) Comprehensive examination in Physiology. This will consist of a written examination covering all aspects of Physiology.
4) Other course work, as recommended by the Graduate Admissions Committee and the research Supervisor.

The candidate's performance will be assessed by an Evaluation Committee and the Research Director on the basis of these criteria.

Summer Session

The Department offers students the opportunity of completing the M.Sc. residency requirements during a summer term, consisting of an approved period of research of at least 12 weeks under the guidance of the student's supervisor.

Students whose performance is satisfactory will submit a thesis on their research work to the Faculty of Graduate Studies and Research for the award of the M.Sc. degree.

c) THE Ph.D. PROGRAM

For students intending to do a Ph.D., the usual procedure is to be admitted initially into the M.Sc. program.

1) If in the first year of the M.Sc. program the quality of performance in all four categories named in b) above is sufficiently high, the Evaluation Committee in consultation with the research Supervisor may recommend waiving of the M.Sc. thesis requirement and permit the student to proceed directly to the Ph.D. program.
2) Students who have completed the M.Sc. degree in Physiology in the Department or those holding an equivalent M.Sc. degree MAY also be admitted to the Ph.D. program.
3) Students in the Ph.D. Program are required to:
   i) give a seminar on their research work at least once every two years during their training;
   ii) pass at the graduate level the Departmental Graduate Seminar Courses in General Physiology; (552-690A; 552-691B)
   iii) fulfill other requirements, to be specified upon admission to the program, considered important for their field of study and/or their general knowledge of Physiology. Students who have not previously passed the Departmental comprehensive examination may be required to do so.
   iv submit a thesis and defend it orally.

COURSES FOR HIGHER DEGREES

552-502B EXERCISE PHYSIOLOGY.
Professors Polosa and Roussos

552-508A ADVANCED RENAL PHYSIOLOGY. Offered in conjunction with the Department of Medicine, Division of Experimental Medicine. Admission by permission of the instructor.
Professor Levy

552-513B CELLULAR IMMUNOLOGY. Offered in conjunction with the Department of Medicine, Division of Experimental Medicine.
Professors Lapp, Kongshavn and Gold

552-515A PHYSIOLOGY OF BLOOD I. Offered in conjunction with the Department of Medicine, Division of Experimental Medicine.
Professors Cooper and Frojmovic

552-516B PHYSIOLOGY OF BLOOD II. Offered in conjunction with the Department of Medicine, Divison of Experimental Medicine.
Professors M. Katz and P. Ponka

552-517A ARTIFICIAL INTERNAL ORGANS. Offered in conjunction with the Department of Medicine, Division of Experimental Medicine and the Artificial Cells and Organs Research Unit.
Professor T.M.S.Chang and Staff

552-518B ARTIFICIAL CELLS, IMMOBILIZED ENZYMES AND BIOMATERIALS. Offered in conjunction with the Department of Medicine, Division of Experimental Medicine and the Artificial Cells and Organs Research Unit.
Professor T.M.S. Chang and Staff

552-601D COMPREHENSIVE EXAMINATION FOR M.SC. STUDENTS.

552-631B SELECTED TOPICS IN APPLIED IMMUNOLOGY. Offered in those years when there is sufficient demand.
Professor Kongshavn

552-690A GRADUATE SEMINARS IN GENERAL PHYSIOLOGY I. For graduate students in Physiology. Prerequisite: 552-311D or equivalent. This is a course of weekly seminars, by staff and students, given during the academic year and designed for discussion and critical analysis of topics in Physiology. Choice of topics will vary from year to year.
Professors Mackey and Glass

552-691B GRADUATE SEMINARS IN GENERAL PHYSIOLOGY II. For graduate students in Physiology. Prerequisite: 552-311D or equivalent. This is a course of weekly seminars, by staff and students, given during the academic year and designed for discussion and critical analysis of topics in Physiology. Choice of topics will vary from year to year.
Professors Mackey and Glass

552-701D Ph.D. COMPREHENSIVE EXAMINATION

516-502A ADVANCED ENDOCRINOLOGY. See Department of Medicine, Division of Experimental Medicine.

516-503B ADVANCED ENDOCRINOLOGY. See Department of Medicine, Division of Experimental Medicine.

516-507D ADVANCED APPLIED RESPIRATORY PHYSIOLOGY. See Department of Medicine, Division of Experimental Medicine.

516-606B ADVANCED APPLIED CARDIOVASCULAR PHYSIOLOGY. See Department of Medicine, Division of Experimental Medicine.

399-551B FLUID MECHANICAL ASPECTS OF RESPIRATORY PHYSIOLOGY. See Biomedical Engineering.

399-650A DYNAMICS AND CONTROL IN PHYSIOLOGICAL SYSTEMS. See Biomedical Engineering.

B8 DEPARTMENT OF PSYCHOLOGY

Stewart Biology Building
1205 Avenue Docteur Penfield
Montreal, PQ
Canada H3A 1B1

STAFF

Professors – A.S. BREGMAN; V. DOUGLAS; W.E. LAMBERT; J. MACNAMARA; R. MELZACK; P.M. MILNER *(Chairman);* R.O. PIHL; E.G. POSER; J.O. RAMSAY; M. STERN

Associate Professors – F. ABOUD; I. BINIK; D.C. DONDERI; A.A.J. MARLEY; W.E. PIPER; T.R. SHULTZ; D. TAYLOR; N. WHITE

Assistant Professors – A.G. BAKER; M. FEUERSTEIN; K.B.J. FRANKLIN; F. GENESEE; M.J. MENDELSON; D.J. OSTRY; M. PETRIDES; M. SEIDENBERG; Y. TAKANE; F. WILKINSON; D. ZUROFF

Lecturers – R. AMSEL; P. JENKINS

Honorary and Auxiliary Professors – I. BRADLEY; M. BRUCK; J. CONNOLLY; D.G. DOEHRING; B. DUBROVSKY; M. GOLICK; E. GUTBRODT; R. HARRIS; R. KANUNGO; J. MacDOUGALL; B. MILNER; A. SCHLIEPER; Y. STEINERT

Clinical Consultants – S. BENAROYA; W. BRENDER; N. GREENBERG; P. GREGOIRE; A. HEBB; R. KACHANOFF; G. NEMETH; A. PUTTERMAN; M. SPEVACK; A. SURKIS

Internship Supervisors – A. AZIMA; L. AZNAVOUR; S. BARZA; J. BEAUDRY; J. BINETTE; S. BURSTEIN; M. CARLIN; J. CHRISTIAN; J. DAVIS; L. DUNSKY; D. DUTIL; F. ENGELSMANN; M. FLAMEN; S. GANDALL; C. GARSON; M. GERBER; J. GRADINGER H. GREENBERG; C. GUTTMAN; O. HEATH; M. HOOPER; R. KARMEL; D. LAMBERT; E. MILLER; K. NATHAN; L. POITRAS; S. RIDDELL; C. ROBINSON; Z. ROSBERGER; J. SHUTER; S. SIROTA; C. SLATER; E. SALAMA; E. SOKOLOFF; R. STEVENS; A. TOHARIA; J. TURNER; S. SPRINGER; L.B. TAYLOR; A. WEISS; A. WOZNY

Graduate work in the Department of Psychology follows two main lines; experimental-theoretical and applied. Work in experimental-theoretical psychology leads to the M.A., M.Sc. and Ph.D. degrees in the psychology of human perception, cognition, learning and language, physiological, personality, social, child, psycholinguistics and quantitative psychology. Work in applied psychology leads to the Ph.D. degree in clinical psychology, and, under special circumstances the M.Sc.A. degree is sometimes awarded.

Facilities for advanced research in a variety of fields are available within the Department itself. In addition, arrangements exist with the Departments of psychology at the Allan Memorial Institute, the Douglas Hospital, Jewish General Hospital, Lakeshore General Hospital, Lethbridge Rehabilitation Centre, Mackay Centre for Deaf and Crippled Children, Montreal General Hospital, Montreal Neurological Institute and Queen Elizabeth Hospital to permit graduate students to undertake research in a hospital setting.

For full information about all programs, financial aid, and for application forms, contact the Graduate Admissions Secretary, Department of Psychology, McGill University, Stewart Biology Building, 1205 Avenue Docteur Penfield, Montreal, PQ, Canada, H3A 1B1. Telephone 392-5742.

REQUIREMENTS

Admission to graduate work will depend on an evaluation of the student's research interests and aptitude for original contributions to knowledge or for professional contributions in the applied field. The usual requirement for admission is an honours or major degree (B.A. or B.Sc.) in Psychology. This includes an introductory course plus six full courses (each equivalent to six semester hours). Experimental psychology, the theoretical development of modern ideas in psychology, and statistical methods as applied to psychological problems (equivalent to an introductory course) are essential. A knowledge of elementary physiology, physics or chemistry, and modern developments in other related biological or social sciences is desirable. Applicants who hold a Bachelor's degree but who have not met these usual requirements should consult a faculty member in their area of interest to determine which (if any) courses must be completed before an application can be considered. A student with insufficient preparation for graduate work may register as a special student in the Faculty of Arts or the Faculty of Science, and follow an appropriate course of study. Such registration requires the permission of the Department but carries no advantage with respect to a student's eventual admission to graduate studies.

NOTE: Applicants must submit to the Graduate Admissions Secretary a completed application form, two copies of the personal academic background form, two copies of all university transcripts, two or more letters of recommendation, Miller Analogies and/or Graduate Record Examination scores, and a personal letter, outlining their experience, interests and objectives in psychology. The application deadline is February 1. Applicants should note that the deadline for many scholarships and fellowships is two to three months earlier than the application deadline.

Requirements for M.A. and M.Sc. Degrees

Candidates must demonstrate a sound knowledge of modern theory, of its historical development, and of the logic of statistical methods as used in psychological experiments. They will be expected to have an understanding of the main lines of current work in other than their own particular field of specialization.

All candidates must take courses 204-650A, 204-651B and 204-660D and in addition any other course specified by the Department. The primary concern of the candidate, however, is the thesis. For this the exploratory work, at least, should get under way early in the year. A general comprehensive written and oral examination will be held which, in conjunction with the thesis, will determine the candidate's final standing for the degree.

Requirements for the Ph.D. Degree

Candidates for the Ph.D. degree in the theoretical-experimental program must demonstrate a broad scholarship, mastery of current theoretical issues in psychology and their historical development, and a detailed knowledge of their special field. A special comprehensive examination is written in one of the following: comparative and physiological psychology, learning and perception, social psychology and personality, measurement, developmental psychology or any other appropriate area.

Candidates for the Ph.D. degree in clinical psychology must demonstrate a high standard of scholarship in psychology and aptitude for the professional application of psychological knowledge. The clinical program is designed primarily to train senior personnel for work in hospitals and clinics. A number of avenues of specialization are, however, possible. Some students may wish to prepare themselves for careers in university teaching or clinical research; others may have an interest in behaviour disorders in the fields of developmental or educational psychology. The minimum time necessary

to obtain the degree is four years beyond the B.A. or B.Sc. degrees. No intermediate or terminal M.A. or M.Sc. degrees are awarded to students in the Ph.D. clinical program. All students are required to write a thesis and demonstrate research capabilities.

The Department of Psychology does not ordinarily require an examination in a foreign language. It should be noted, however, that all students planning to practise in the province of Québec will be examined on their proficiency in French before being admitted to the professional association.

COURSES AND SEMINARS FOR HIGHER DEGREES

204-601D Reference number for comprehensive examination written by candidates for the M.A., M.Sc., or M.Sc. A. degree.

204-615A DIAGNOSTIC METHODS (CHILDREN).

204-616A PRACTICUM – CHILD DIAGNOSTICS.

204-617A DIAGNOSTIC METHODS (ADULTS).

204-618B PRACTICUM – ADULT DIAGNOSTICS.

204-630A PSYCHOPATHOLOGY.

204-641D BEHAVIOUR DEVIATIONS. Appraisal and Modification.

204-650A ADVANCED STATISTICS I. A course in advanced statistics with specialization in experimental design.

204-651B ADVANCED STATISTICS II. A course in advanced statistics with specialization in regression techniques.

204-660D PSYCHOLOGICAL THEORY. Seminar designed as an introduction to more advanced graduate courses.

204-690D COMPUTERIZED LABORATORY METHODS IN PSYCHOLOGY.

204-701D Reference number for comprehensive preliminary Ph.D. examinations.

204-705D Reference number for research project of M.Sc. (A.) students.

204-706G CLINICAL PRACTICUM.

204-707H CLINICAL INTERNSHIP I.

204-708H CLINICAL INTERNSHIP II.

204-710 to 715 COMPARATIVE AND PHYSIOLOGICAL PSYCHOLOGY.

204-716 to 721 LEARNING AND MOTIVATION.

204-722 to 727 PERSONALITY AND SOCIAL PSYCHOLOGY.

204-728 to 733 CLINICAL PSYCHOLOGY.

204-734 to 739 DEVELOPMENTAL AND LANGUAGE.

204-740 to 745 PERCEPTION AND COGNITION.

204-746 to 751 QUANTITATIVE AND INDIVIDUAL DIFFERENCES.

204-752D PSYCHOTHERAPY AND BEHAVIOUR CHANGE. A practice-oriented course. Staff and students discuss current cases being treated with a variety of psychotherapeutic and behavioural change techniques.

204-780D SPECIAL TOPICS IN CLINICAL PSYCHOLOGY.

B9 WILDLIFE BIOLOGY

Qualified students interested in undertaking graduate studies in the area of Wildlife Biology should consult Professor J.R. Bider, Department of Renewable Resources, Macdonald Campus of McGill University, Ste. Anne de Bellevue, PQ, H9X 1C0. Special programs of study are available to such students.

375-605B WILDLIFE ECOLOGY. (2 class hours per week, one term). Discussion of problems in wildlife ecology with special reference to the research interests of staff and students involved.
Professor Doucet and Staff

1982-83
FACULTY OF GRADUATE STUDIES AND RESEARCH

McGill University
Montreal

Section "C"
Humanities

C 1 – Department of Art History
C 2 – Department of Classics
C 3 – Communications Programs
C 4 – Comparative Literature Program
C 5 – Department of English
C 6 – Département de Langue et Littérature Françaises
C 7 – Department of German
C 8 – Department of Hispanic Studies
C 9 – Institute of Islamic Studies
C10 – Department of Italian
C11 – Jewish Studies Program
C12 – Department of Linguistics
C13 – Music
C14 – Department of Philosophy
C15 – Religious Studies
C16 – Department of Russian and Slavic Studies

The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees schedules and the revision or cancellation of particular courses.

Legal Deposit II 82

C1 DEPARTMENT OF ART HISTORY

Arts Building
853 Sherbrooke St. West
Montreal, PQ
Canada H3A 2T6

STAFF

Emeritus Professor – WINTHROP JUDKINS
Professor – GEORGE GALAVARIS *(Director of Graduate Studies)*
Associate Professors – ROSEMARIE BERGMANN; R.N. BERTOS *(Chairman)*; T. GLEN *(on leave 1982-83)*

REQUIREMENTS

Admission

For admission to the M.A. or Ph.D. programs, candidates are normally expected to have a B.A. degree with Honours, either in Art History alone or in Art History and one other related subject – or the equivalent, i.e. one-third to one-half of the candidate's undergraduate courses in an integrated program, passed with appropriate standing. For candidates from institutions not offering such undergraduate programs, provision is made for preliminary studies qualifying the candidate for admission to graduate work. Courses in studio practice do not count. Please see, also, the language requirements given under the degree programs below. Applications and supporting documents should be submitted by January 31.

Requirements for the M.A. Degree

1) Ten half-courses approved by the Department, six in the first graduate year.
2) Written *general* examination on the History of Art.
3) Oral examination on one of the following five fields to which the proposed thesis topic belongs: Ancient, Medieval, Renaissance, Baroque – to 1750, Modern – from 1750.
4) Thesis on a topic approved by the Department from the candidate's chosen field of specialization.

Language requirements for the M.A. degree: reading knowledge of English and French and a minimum of one additional approved classical or modern language, before admission to the second year of the M.A. program.

Requirements for the Ph.D. Degree

The number of entrants to the doctoral program is necessarily limited to the most highly qualified applicants.

Although all PhD. candidates must fulfill the course requirements of the M.A. degree (as given above), those whose background is not otherwise deemed sufficient by the Department must also pass a qualifying examination before continuing in the Ph.D. program (consisting of a written general examination of the history of art, and an oral examination on one of the following five fields of specialization chosen by the candidate: Ancient, Medieva, Renaissance, Baroque to 1750, Modern from 1750).

The Ph.D. requirements are then fulfilled progressively with the Ph.D. comprehensive examinations, the Doctoral dissertation and its oral defence.

Language requirements for the Ph.D. degree: reading knowledge of three modern languages and, depending on the field, at least one classical language, approved by the Department.

The Department is prepared to direct dissertation in fields where in adequate supervision and resources can be provided. Candidates are also advised to consult the *General Information and Regulations* section of this announcement.

COURSES FOR HIGHER DEGREES

Each year, courses given in the form of seminars or tutorials (the materials varies yearly), are offered in some of the areas listed below. For a precise list of topics for the forthcoming session, students should contact the Departmental Secretary.

123-643A or B GREEK AND ROMAN ARCHAEOLOGY.

123-646A or B MEDIAEVAL ART AND ARCHAEOLOGY.

123-649A or B ART OF THE ITALIAN RENAISSANCE.

123-652A or B NORTHERN RENAISSANCE ART.

123-655A or B BAROQUE ART AND ARCHITECTURE.

123-658A or B 19TH CENTURY PAINTING AND SCULPTURE.

123-661A or B 19TH CONTEMPORARY ART AND CRITICISM.

123-675A or B RENAISSANCE AND POST-RENAISSANCE STUDIES I.

123-678A or B RENAISSANCE AND POST-RENAISSANCE STUDIES II.

123-681A or B STUDIES IN GREEK AND ROMAN SCULPTURE.

123-684A or B STUDIES IN THE ART OF BYZANTIUM.

123-687A or B PROBLEMS IN WESTERN MEDIAEVAL ARCHITECTURE AND SCULPTURE.

123-690A Or B STUDIES IN MANUSCRIPT ILLUMINATION.

123-693A or B ARTISTIC THEORY IN THE RENAISSANCE.

123-696A or B GREEK MYTHOLOGY IN ITALIAN RENAISSANCE ART.

123-713A or B STUDIES IN THE GRAPHIC ARTS.

123-715A or B RESEARCH IN MODERN ARCHITECTURE: – 1750 TO THE PRESENT.

123-719A or B SEMINAR IN URBAN PLANNING AND TOPOGRAPHY.

123-722A or B STUDIES OF DRAWINGS.

123-725A or B PROBLEMS IN THE HISTORY OF TASTE AND CRITICISM.

Fourth Year Undergraduate Courses for Which Graduate Credit is Given

123-414B WESTERN MEDIEVAL PAINTING.

123-430A or B EVOLVING CONCEPTS OF THE DISCIPLINE OF ART HISTORY.

123-440A THE VISUAL LANGUAGE OF ARTISTIC EXPRESSION.

C2 DEPARTMENT OF CLASSICS

Stephen Leacock Building
855 Sherbrooke St. West
Montreal, PQ
Canada H3A 2T7

STAFF

Emeritus Professor – P.F. McCULLAGH
Professor – A. SCHACHTER *(on leave)*
Associate Professors – A. FARMAKIDES, J. M. FOSSEY; M.J. SILVERTHORNE *(Chairman)*; G.L. SNIDER; P. VALERI TOMASZUK; P. VIVANTE *(on leave)*; G. M. WOLOCH
Assistant Professor – T.W. RICHARDSON

NOTE: For detailed information concerning the M.A. and Ph.D. degrees in Classics, please inquire of the Department of Classics.

GRADUATE COURSES IN CLASSICS

A limited number of courses and seminars is offered each year. Course content is, generally speaking, fitted to the requirements of individual students.

Numbering System for Courses

When offered, graduate courses will be numbered according to the following system:

600-604, 700-704:	Epigraphy and Numismatics
605-609, 705-709:	Greek and Roman History
610-615, 710-715:	Latin Poetry
620-625, 720-725:	Ancient Greek Poetry
630-635, 730-735:	Modern Greek
640-645, 740-745:	Archaeology
650-655, 750-755:	Latin Prose
660-665, 760-765:	Ancient Greek Prose
670-675, 770-775:	Philosophy and Religion
680-689, 780-789:	Research Projects
690-699, 790-799:	Seminars

At the time of going to press, the following graduate courses had been arranged for 1982-83.

114-605D SEMINAR IN ROMAN HISTORY (6 credits).
Professor Woloch

114-613A LATIN POETRY (3 credits).
Horace
Professor McCullagh

114-614B LATIN POETRY (3 credits).

114-623B ANCIENT GREEK POETRY (3 credits).
Greek Lyric Poetry.
Professor Vivante

114-624A ANCIENT GREEK POETRY (3 credits).

114-643D ARCHAEOLOGY (6 credits).
Regional Studies in Classical Archaeology.
Professor Fossey

114-652B LATIN PROSE (3 credits).
Seneca
Professor Richardson

114-653A LATIN PROSE (3 credits)

114-662A ANCIENT GREEK PROSE (3 credits).
Herotodus
Professor Snider

114-663B ANCIENT GREEK PROSE (3 credits).

114-670B PHILOSOPHY AND RELIGION (3 credits).
A seminar in the history of classical ideas.
Professors Vivante and Silverthorne

114-683A RESEARCH PROJECT (3 credits).
Archaelogy
Professor Fossey

114-684B RESEARCH PROJECT (3 credits).
Archaeology
Professor Fossey

114-691A SEMINAR: (3 credits).
The idea of Epic.
Professor Vivante

114-692B SEMINAR: (3 credits).
Greek and Roman literary criticism.
Professor Tomaszuk

In addition, certain courses listed in the *Faculty of Arts Announcement* may be taken by graduate students, with the permission of the Department.

C3 COMMUNICATIONS PROGRAMS

Macdonald-Harrington Building
815 Sherbrooke St. West
Montreal, PQ
Canada H3A 2K6

TEACHING STAFF

Professor – P. OHLIN
Associate Professors – I. BELLERT; W.P. HILL-GARTNER; G.J. ROBINSON *(Director);* G.H. SZANTO
Assistant Professors – D.C. CROWLEY; M. FINLAY-PELINSKI; J. LANGUIRAND; P. LIVINGSTON.

Associated, Supervisory Staff

M. ANGENOT *(French Language and Literature; Comparative Literature Program);* M. BRISTOL *(English);* L. DRUMMOND *(Anthropology);* J. GALATY *(Anthropology);* M. GOLDBERG *(Management);* I. GOPNIK *(English);* M. GOPNIK *(Director, University Teaching and Learning; Linguistics);* M. KETZ DE VRIES *(Management);* Y. LAMONDE *(Director, French Canada Studies);* H. McPHERSON *(English);* H. MINTZBERT *(Management);* R. PRINCE *(Psychiatry);* J. RIPLEY *(English);* M. STEINBECK-LAFON *(English);* D. SUVIN *(English);* D.C. THOMSON *(Political Science);* W. WEES *(English).*

The Graduate Program in Communications offers courses and directs project research in preparation for the M.A. and Ph.D. in Communications.

The Program is concerned with the study of communications phenomena through an interdisciplinary activity that includes both theoretical and practical considerations of the various modes and media of communication. The Program does not provide the purely technical training which can be more appropriately carried out by institutions of technology and communication arts, rather the focus is on broadening the understanding of the interplay between practical needs and theoretical perspectives. The special theoretical interest of the Program centres on the nature and scope of human communications as they emphasize the relationship of cognitive, social and aesthetic problems. Degree candidates are encouraged to explore these aspects of communication studies by drawing upon the resources of the various departments throughout the university with whom the Program has established close working relations.

Requirements for the M.A. Degree

An Honours Bachelor's degree or equivalent is required of applicants for the M.A. Program. In any case the transcript must show breadth or depth in related areas of study. Two years of residence are normally necessary to fulfill the Master's degree. Course work and a thesis are required together with a demonstrated competence in French as a second language.

Requirements for the Ph.D. Degree

Applicants for the Ph.D. program are expected to have completed the equivalent of an M.A. in Communications or an alternative acceptable to the Program. Admission will be based on academic achievement and evidence of talent and strong motivation in communications studies.

In some cases candidates may be admitted into Phase II of the doctoral program at the discretion of the Program and the Faculty of Graduate Studies and Research, thereby gaining accreditation of one year of resident study. Three years of residence are normally required for the Doctoral degree. The program of study is comprised of three or more projects, the fulfilment of a language requirement and a written dissertation.

Admission

Inquiries regarding the Program should be addressed to the Director, Graduate Program in Communications, McGill University, Macdonald-Harrington Building, 815 Sherbrooke St. West, Montreal, PQ, H3A 2K6.

Courses for the M.A. Degree

109-611A THEORIES OF COMMUNICATION I. Examination of a variety of human communication theories including cybernetic models, social interactionist models, semiotic and symbolic forms of analysis, with particular emphasis on

the explanation of how theories are linked to various forms of practice and how these, in turn, relate to a general understanding of communication phenomena.

109-612B THEORIES OF COMMUNICATION II. Course description as per 109-611A above.

109-616B, 617A STAFF-STUDENT COLLOQUIUM AND WORKING PAPERS. The Staff-Student Colloquium is concerned with modes, configurations, and the broad procedures of communication studies. Each semester major theoretical issues are examined through papers, lectures and discussions in relation to communication practices and to the development of the field.

109-622A/B INTERNATIONAL COMMUNICATIONS: ISSUES AND THEORIES. This course will examine Canada's media policies in relation to changing communication needs and to new political regulatory demands presented by other nations and bodies.

109-624B CANADIAN CULTURAL AND COMMUNICATIONS POLICY. A continuation of some the themes introduced in Sociology 166-623A and a general historical and theoretical consideration of Canadian cultural and communication policy and legislation.

109-626A AESTHETIC THEORIES AND MEDIA PRACTICE I. An examination of the relationship between current theories of communication and their implications for practical work in the media. The course will also examine the relationship of actual practical problems in the communication arts to the development of theoretical concepts.

109-627B AESTHETIC THEORIES AND MEDIA PRACTICE II. Course description as per 109-626A above.

109-630A/B, 109-730A/B READINGS IN COMMUNICATIONS RESEARCH. Reading programs supervised by a member of staff; topics will be chosen to suit individual interests.

109-635A/B DESIGNING INSTRUCTIONAL COMMUNICATIONS. This course will investigate the practical aspects of designing communications media. The content will focus on: audience analysis, specification of objectives, criteria for the selection of media, production planning and implementation, and evaluation. Students will be expected to plan, produce and test an instructional package.

109-641B PROPAGANDA. An examination of traditional and contemporary forms of propaganda, with particular emphasis on integration propaganda and agitation propaganda. Basic issues in propaganda and ideology; media of propaganda; methods of propaganda analysis.

109-650A/B LINGUISTIC MODELS IN RELATION TO HUMAN COMMUNICATION ISSUES. An introduction to important trends in traditional, structural and modern linguistic theories. Different approaches to linguistic studies and formal models for language description and the application of linguistic models to other communication forms will be discussed.

109-655A INTERPRETIVE METHODS IN MEDIA AND COMMUNICATIONS I. A study of the various modes of interpreting and understanding the products of the mass media and of other human communication events. A series of current approaches will be examined with specific attention being directed towards the application of these theories in interpreting specific messages, texts or events.

109-656B INTERPRETIVE METHODS IN MEDIA AND COMMUNICATIONS II. Course description as for 109-655A above.

109-660A/B COMMUNICATIONS AND DEVELOPMENT. A study of the efforts to design and assess the role of communication in modern social and cultural institutions, especially the issues raised by the introduction of new communication techniques and technologies. Key works will be examined to identify communication problems.

109-665A/B MASS CULTURE AND MEDIA IN CANADA AND QUÉBEC. This course will focus on contemporary culture and media and Canada and Québec since 1945, with special emphasis on the 70's.

109-730A/B READINGS IN COMMUNICATIONS REASEARCH. See 109-630A/B above.

109-751A RESEARCH SEMINAR IN SPECIAL TOPICS I. A research seminar on a topic that is not covered in the regular seminars, but which is of interest to a group of students and a faculty member. The exact topic for the research papers will be determined by mutual agreement among students and faculty members involved.

109-752B RESEARCH SEMINAR IN SPECIAL TOPICS II. Course description as per 109-751A above.

109-782A ADVANCED SEMINAR IN THEORIES OF COMMUNICATION. Seminar on human communication theories introduced in 109-610D.

109-783B ADVANCED SEMINAR IN THEORIES OF COMMUNICATION. Course description as for 109-782A above.

Doctoral students have been assigned a series of projects in place of the traditional comprehensive examination. These individual evaluations are recorded in the transcript under the series of numbers 109-702D, 703D, 704D, 705D.

Details of related courses, and further information on the Program are available from the Program Office.

C4 COMPARATIVE LITERATURE PROGRAM

Macdonald Harrington Building
815 Sherbrooke St. West
Montreal, PQ H3A 2K6

STAFF

Professors - M. ANGENOT *(French and Comparative Literature);* E. KUSHNER *(French and Comparative Literature);* D. SUVIN *(English and Comparative Literature);* G. SZANTO *(Director of Program)*

Comparative Literature is the integrated study of literary history and theory across national and linguistic boundaries. As a discipline, comparative literature recognizes that the language in which a text is written is only one of the determinants of the content of that text. Similarities between texts of different nations or national sub-groups are often more relevant than the language differences that divide the audiences of these texts.

REQUIREMENTS

Admission

Candidates should as a rule hold a Bachelor of Arts with Honours or its equivalent in a literature, or joint Honours in two literatures, or in one literature and another Arts subject. Candidates must be competent in three languages. Admission is competitive, in part based on the admission committee's assessment of a statement explaining the candidate's desire to study Comparative Literature, and in part on the committee's assessment of an example of the candidate's written work.

Requirements for the M.A. Degree

In most instances the student takes the equivalent of six full year courses or seminars and writes an M.A. thesis. Of these six seminars or courses, three are normally chosen from the course offerings of the program itself and include the Pro-Seminar in Comparative Literature, and three are chosen from those given by other departments (including those courses that are cross-listed with the program). Normally, two of the courses taken outside the program are in the literature of specialization and one is in another area or literature.

The thesis, which usually runs between 80 and 120 pages in length, integrates the candidate's study of specific literatures with his or her other studies of literary theory.

COURSES FOR HIGHER DEGREES

102-610D PRO-SEMINAR IN COMPARATIVE LITERATURE. A reading and discussion of basic Comparative Literature methodologies from Baldensperger to the present. In addition, the Pro-Seminar will examine a series of literary texts within the context of the historical and theoretical methodologies studies.

- **102-615D LITERARY THEORY: POETRY.** Introduction to the use of theory as related to poetry. Readings will include general and specific works on literary study and the critical process, works on evaluation and on art and aesthetic value.

- **102-620D STUDIES IN NARRATIVE.** The topic will vary from year to year, and will include an examination of fiction from two or more national literatures as well as readings from the history and theory of fiction. (Possible topics: Narrative Impressionism; Proust and Joyce; the Bildungsroman; etc.). In 1982-83: Chinese and European Classical Prose: Narrative and Verisimilitude.
Professor D. Suvin

102-630D STUDIES IN DRAMATURGY. The topic will vary from year to year, and will include both an examination of plays from two or more national literatures and readings from the history and theory of dramatic literature.
Professor D. Suvin

102-640D SOCIOLOGY OF LITERATURE. The topic will vary from year to year. The content of the seminar will include both an examination of various theories of the sociology of literature, and the application of such theories to a series of literary texts.
Professor G. Szanto

102-650D GENRE THEORY. A general introduction to genre theories, from Aristotle to the Geistesgeschichte school and from Marxian criticism to literary semiotics; followed by a systematic description of a given historical genre, that developed in several national literatures, or of a set of continuous genres. Students will apply the principles of genological description and interpretation to a corpus of literary texts. (Possible topics: the elegy in classic and modern literatures, the novella in the Middle Ages, the philosophical dialogue, the gothic romance, contemporary forms of the essay, religious and forensic eloquence in the XVIIth century, the melodrama, the detective novel, etc.). In 1982-83: Persuation and Narration: Ancient and Contemporary Forms of the Essay.
Professor M. Angenot

SLOT COURSES (Topics will vary each year)
102-661A SPECIAL TOPICS IN LITERARY THEORY I

102-662B SPECIAL TOPICS IN LITERARY THEORY II

102-664A SPECIAL TOPICS IN COMPARATIVE LITERATURE I

102-665B SPECIAL TOPICS IN COMPARATIVE LITERATURE II

In 1982-83: John Berger, the Novels and the Criticism.

Professor G. Szanto

For further information, please contact Professor G. Szanto, Comparative Literature Program, Macdonald Harrington Building, 2nd floor. (392-5452).

C5 DEPARTMENT OF ENGLISH

Arts Building
853 Sherbrooke St. West
Montreal, PQ
Canada H3A 2T6

STAFF

Professors - C.D. CECIL; L. DUDEK; D.C. FRYE; A. HEUSER; S. KLIMA; A.E. MALLOCH; H. McPHERSON; P. OHLIN M. PUHVEL; J. RIPLEY; D. SUVIN

Associate Professors - H. ANDERSON; D. BOUCHARD; M. BRISTOL; A. CONWAY; M. DAVISON; M. DORSINVILLE; L.T. DUER; L.T. ELLIOTT; I. GOPNIK; C.A.E. HEPPNER; L. LIEBLEIN; Y. LINDEMAN; P.H. PIEHLER; R. REICHERTZ; B. ROBINSON; J. RONSELY; M. STENBAEK-LAFON; L. TROIDE; B. WEEMS; W. WEES; D. WILLIAMS

Assistant Professors - B. ANDERSON; P. LIVINGSTON

Faculty Lecturers - W.T. BOOTH; A.R. GODFREY

REQUIREMENTS

Applications

Letters of recommendation are required of *all* applicants. Applications close March 31. Completed applications and supporting material for persons seeking Teaching Fellowships should reach the Department by January 31.

The M.A. Degree

Admission to the M.A. program requires an Honours degree in English or its equivalent. Candidates with insufficient background may be required to take a Qualifying Year.

The basic requirements for the M.A. are 2½ courses and a thesis of 80-100 pages written under supervision. The program normally takes two years, but may be completed within the residency requirement of three terms of residence and well-prepared students are encouraged to finish the thesis during the third term. In some cases, it may be possible to arrange for this third term to be completed during the summer months.

The Ph.D. Degree

The number of entrants to the doctoral program is severely limited. Very highly qualified applicants may be admitted to the first year from an honours program in English (or its equivalent). Qualified applicants who have already completed a Master's degree in English are admitted to the second year of the program. Candidates are expected to complete comprehensive examinations before the end of the third year, and to begin the thesis immediately thereafter. The language requirement must be fulfilled before examinations may be undertaken.

It is the policy of the Department to urge candidates to complete the Ph.D. program within four years. A candidate intending to submit the thesis to meet the deadline for Spring Convocation must give notice of this intention before January 1. A candidate intending to meet the deadline for Fall Convocation must give such notice before May 1. A detailed description of the program may be obtained from the departmental office; see also the *General Information and Faculty Regulations* section of the *Faculty of Graduate Studies and Research Announcement.*

COURSES FOR HIGHER DEGREES

The following is a list of courses offered on a rotational basis. A list of courses to be given in 1982-83 will be available from the departmental office.

110-447D CROSSCURRENTS IN 18TH CENTURY ENGLISH AND EUROPEAN LITERATURES.
(Prerequisite: A reading knowledge of French).

110-602A BIBLIOGRAPHY.

110-604A OLD ENGLISH LANGUAGE AND PROSE LITERATURE.

110-605B OLD ENGLISH HEROIC POETRY.
Open to students who have taken English 110-604A, or its equivalent elsewhere.

110-606A INTRODUCTION TO MIDDLE ENGLISH LITERATURE.

110-607B MIDDLE ENGLISH LITERATURE.

110-608A CHAUCER. The Canterbury Tales.

110-609B CHAUCER. Troilus and Criseyde and other poems.

110-610A,B DEVOTIONAL LITERATURE.

110-612D THE TRANSITION FROM THE MIDDLE AGES TO THE RENAISSANCE.

110-615D SHAKESPEARE.

110-616D ELIZABETHAN AND JACOBEAN DRAMA.

110-640D THE AMERICAN NOVEL.

110-650D 19TH CENTURY LITERATURE AND THOUGHT.

110-659A,B STUDIES IN SCIENCE FICTION.

110-660D STUDIES IN SCIENCE FICTION.

110-661A,B SEMINAR OF SPECIAL STUDIES.

110-662A,B SEMINAR OF SPECIAL STUDIES.

110-665A,B STUDIES IN AMERICAN LITERATURE AND INTELLECTUAL HISTORY.

110-670D COMPARATIVE LITERARY STUDIES.

110-671A,B DESIGNING EFFECTIVE COMMUNICATION.

110-675D LITERARY CRITICISM.

110-680D CANADIAN LITERATURE.

110-687D RESEARCH SEMINAR.

110-688A,B STUDIES IN DRAMATIC FORM.

110-689D RESEARCH SEMINAR.

110-690D SEMINAR OF SPECIAL STUDIES.

110-707A,B THE ARTHURIAN LEGEND.

110-708A,B STUDIES IN A LITERARY FORM.

110-710A,B RENAISSANCE STUDIES.

110-712A,B RENAISSANCE DRAMA.

110-714A,B RENAISSANCE POETRY.

110-716A,B SPECIAL STUDIES IN SHAKESPEARE.

110-718A,B RENAISSANCE COMEDY.

110-722D MILTON.

110-724A,B COMEDY

110-726A,B NARRATIVE PROSE OF THE 18TH CENTURY.

110-727A,B AUGUSTAN POETRY.

110-728A,B THE LATER 18TH CENTURY.

110-730A,B ROMANTIC THEORY AND POETRY.

110-731D 19TH CENTURY STUDIES.

110-732A,B POETRY AND POETICS.

110-733A,B THE VICTORIAN NOVEL.

110-734A,B STUDIES IN FICTION.

110-735D SPECIAL STUDIES IN CRITICISM.

110-736D MODERN POETRY.

110-737A,B MODERN NORTH AMERICAN DRAMA.

110-740D STUDIES IN SYMBOLISM.

110-746A,B THE 19TH CENTURY.

110-756D DRAMA OF THE 20TH CENTURY.

110-757A,B MODERN DRAMA.

110-760A,B STUDIES IN ANGLO-IRISH LITERATURE.

110-761A,B 20TH CENTURY NOVELISTS.

110-765D THEORY AND PRACTICE OF TRANSLATION.

110-770D STUDIES IN AMERICAN LITERATURE.

110-775D RECENT AMERICAN AND CANADIAN LITERATURE.

110-776A,B FILM THEORY.

110-780D STUDIES IN LITERARY FORMS.

110-781D STUDIES IN COMMUNICATIONS.

110-784D LANGUAGE, LINGUISTICS AND LITERATURE.

110-785A,B STUDIES IN LITERARY THEORY.

110-786D RESEARCH SEMINAR.

110-787D RESEARCH SEMINAR.

110-788D STUDIES IN DRAMATIC FORM.

110-789D SEMINAR OF SPECIAL STUDIES.

COURSES RESTRICTED TO Ph.D. CANDIDATES:

110-791D DOCTORAL COMPREHENSIVE EXAMINATION, PART I.

110-792D DOCTORAL COMPREHENSIVE EXAMINATION, PART II.

110-793D DOCTORAL COMPREHENSIVE EXAMINATION, PART III.

110-794D DOCTORAL COMPREHENSIVE EXAMINATION, PART IV.

110-795D DOCTORAL COMPREHENSIVE EXAMINATION, PART V.

110-745D INTRODUCTORY SEMINAR FOR Ph.D. STUDENTS.

C6 DÉPARTEMENT DE LANGUE ET LITTÉRATURE FRANÇAISES

Peterson Hall
3460 McTavish Street
Montreal, PQ
Canada H3A 1X9

STAFF

Professors – M. ANGENOT; M.T. CARTWRIGHT; G.-P. COLLET; *(professeur invité)* G. DI STEFANO; J. ETHIER-BLAIS; EVA KUSHNER;

J.-C. MORISOT; L.C. VAN DELFT
Associate Professors - J.-P. BOUCHER; YVONNE CHAMPIGNEUL; ISIDA CREMONA; J.-P. DUQUETTE; H.C. JONES; A. MAUGEY; R.G. McGILLIVRAY *(Chairman)*; GABRIELLE PASCAL; M. RABOTIN; F. RICARD; Y. RIVARD; A. SMITH; J. TERRASSE; A. TICHOUX
Assistant Professor - IRÈNE STAROSTA J.C. LEMYZE

REQUIREMENTS

Admission

PROPÉDEUTIQUE

Peuvent être admis en Propédeutique les étudiants titulaires d'un B.A. avec concentration en études françaises ou québécoises ("Major"), qui sont alors tenus de s'inscrire à temps complet à un programme de 8 cours, établi lors de leur inscription.

Graduate Record Examination (G.R.E.)

Tous les candidats venant d'un Collège ou d'une Université américaine doivent soumettre leur "Graduate Record Examination Scores". Les dossiers de demande d'admission ne seront pas étudiés sans ce document.

Épreuve d'anglais

Tous les étudiants de M.A. et de Ph.D. doivent subir, avant la remise de leur mémoire ou de leur thèse, une épreuve destinée à vérifier leur connaissance de la langue anglaise où il leur sera demandé de traduire de l'anglais au français un texte critique portant sur la littérature française.

M.A.

Le programme de maîtrise est à la fois un programme complet en soi et une première étape vers le Ph.D. Il vise deux buts également importants:

1- Permettre à l'étudiant titulaire d'un B.A. avec spécialisation en français ("Honours") de compléter et d'approfondir ses connaissances de l'ensemble du domaine littéraire grâce à un programme raisonné de cours portant sur l'histoire des littératures française et québécoise de même que sur une variété de sujets connexes: littératures comparées, genres littéraires, histoire de la langue, civilisation, etc.
2- Favoriser l'apprentissage de la recherche et un début de spécialisation de la part de l'étudiant qui suit un cours d'initiation aux méthodes en recherche littéraire, et surtout rédige un mémoire sous la direction d'un professeur du Département.

La durée des études de maîtrise est de trois trimestres: deux trimestres pour la scolarité (M.A.I), et un trimestre pour la rédaction du mémoire (M.A.II).

Pour être admis directement en M.A. I, le candidat doit être titulaire d'un B.A. avec spécialisation en français ("Honours"), ou d'un B.A. avec double spécialisation ("Joint-Honours"). Le B.A. ne donne pas automatiquement droit à l'admission. Le candidat doit également présenter un bon dossier de 1er cycle.

SCOLARITÉ - (M.A.I)

Les deux premières sessions du programme de maîtrise sont consacrées à la scolarité, pour les étudiants inscrits à temps complet; ils doivent alors suivre l'équivalent de 8 demi-cours, soit 4 par session; les étudiants inscrits à mi-temps doivent s'inscrire à un minimum de deux demi-cours par session. La note de passage est 65%. Les cours sont ainsi répartis:

- 2 cours de critique et/ou de théorie littéraire;
- 2 cours dans le domaine français et/ou québécois;
- l'inscription au cours 125-695A - **Initiation à la recherche littéraire** est fortement conseillée aux étudiants;
- les autres cours sont facultatifs.

Le choix de cours de l'étudiant doit être approuvé par le directeur des études au moment de l'inscription. La Commission des admissions du département peut accorder des dérogations au règlement des inscriptions à la Maîtrise en fonction du dossier de chaque étudiant.

Un cours facultatif (ou 2 demi-cours) peut être suivi dans un autre département de McGill figurant à la Section C ("Humanities") de l'annuaire de la Faculté des études avancées et de la recherche, ou à une autre université, pourvu qu'il soit de même niveau que les cours 600 ou 700 offerts par le Département. Dans tous les cas, l'étudiant doit obtenir l'autorisation du comité des études de 2e et 3e cycles, qui ne sera accordée que si le cours en question cadre avec le programme d'études du candidat.

Le mémoire (M.A.II)

La troisième session du programme de maîtrise est consacrée à la rédaction du mémoire. Le sujet du mémoire doit être déposé par l'étudiant au Comité des études de 2e et 3e cycles pour approbation au plus tard au mois d'octobre si la scolarité de maîtrise a pris fin en avril, et au plus tard en avril si la scolarité a pris fin en décembre. Le mémoire doit être déposé au plus tard quatre ans après la première inscription (temps complet) ou cinq ans (mi-temps).

Ph.D.

Pour être admis au programme de Ph.D. le candidat doit satisfaire aux conditions suivantes:

1) Etre titulaire du M.A. en français de l'Université McGill, ou l'équivalent; avoir obtenu au cours de sa scolarité de maîtrise une moyenne d'au moins 75%; avoir rédigé un mémoire qui ait mérité au minimum deux mentions "bien";

2) Présenter, en plus du formulaire officiel de demande d'admission accompagné de 2 lettres de recommandation et de ses *relevés de notes officiels,* une lettre exposant les raisons qui l'incitent à demander son admission au Département, ainsi qu'un projet d'étude indiquant avec une certaine précision le domaine et la méthodologie de la recherche de sa thèse de doctorat. Ce document ne constitue pas nécessairement un engagement formel de la part du candidat qui pourra modifier son sujet une fois engagé dans ses études; la Commission des admissions sera mieux à même de juger, d'après ce projet, du sérieux du candidat et de ses aptitudes à la recherche littéraire avancée.

Programme

Le programme de Ph.D. comporte 3 parties:

- -Cours et séminaires
- -Examens général et spécialisé
- -Thèse

Cours et séminaires:

Ph.D.I - Même programme que pour l'année de M.A.I.

Ph.D.II - Huit cours au choix à l'exception du **Séminaire de doctorat** (125-711B) qui est obligatoire.

Ph.D.III - L'examen préliminaire général (125-700D)

Cette épreuve consiste à préparer 3 travaux portant sur les domaines choisis, et suivis, pour chacun d'eux, d'une interrogation orale. Les sujets sont établis en fonction du profil de la scolarité du candidat et portent sur des questions d'ensemble (par exemple: sujet d'histoire littéraire, de genre, d'école, de période, de thème, de structure; théorie et pratique d'une méthode critique; problème en rapport avec la langue et la linguistique, etc.). Une fois que l'étudiant aura choisi le domaine de sa recherche, de même que le directeur de sa thèse, un comité-conseil composé de trois professeurs, dont le directeur de thèse, sera formé. Ce comité-conseil approuve le sujet des trois travaux, soumis ensuite pour approbation au Comité des études. Les trois travaux doivent être terminés en mai de l'année Ph.D. III.

Le rôle du comité-conseil est de suivre d'aussi près que possible le travail du candidat, de discuter avec lui de l'orientatrion de ses recherches, ainsi que de la conduite de sa préparation à la thèse, et d'agir comme jury aux examens général et spécialisé. Ce comité est formé du directeur de recherche de l'étudiant et de deux autres professeurs du Département, spécialistes dans le domaine de recherche du candidat ou dans un domaine connexe.

Ph.D. IV- L'examen préliminaire spécialisé (125-701D).

Cette ultime épreuve ne peut avoir lieu avant que les trois étapes de l'examen général aient été franchies. Le travail exigé est un état présent des recherches accompagné d'une bibliographie critique.

Ce travail doit être remis au plus tard à la rentrée de janvier en même temps que doit être déposé le sujet de la thèse; ces deux documents sont jugés et approuvés par le comité-conseil et ensuite par le Comité des études.

Thèse:

Une fois réussies les épreuves générale et spécialisée, l'étudiant dispose de 4 ans pour déposer sa thèse. Dès que les examinateurs ont fait parvenir à la Faculté des rapports favorables à l'acceptation de la thèse, le candidat est appelé à la soutenir.

La soutenance a lieu devant un jury d'au moins 5 personnes. Il est présidé par un représentant du doyen. Font également partie du jury le comité-conseil de l'étudiant de même que le directeur du Département ou son représentant, et un universitaire étranger au Département ou à l'Université.

COURS DE 2e ET 3e CYCLES

L'étudiant trouvera dans le Guide bleu, mis à sa disposition au Secrétariat des études de 2e et 3e cycles, la description détaillée des cours offerts ainsi que tous les renseignements pertinents sur nos programmes.

Séminaires portant sur la langue

125-004 - FRENCH READING COURSE
125-510 - TRADUCTION LITTÉRAIRE
125-520 - ÉVOLUTION DE LA LANGUE FRANÇAISE AU CANADA
- **125-602 - QUESTIONS DE TRADUCTION II**
- **125-604 - QUESTIONS DE TRADUCTION II**
- **125-605 - HISTOIRE DE LA LANGUE I**
- **125-606 - HISTOIRE DE LA LANGUE II**
- **125-607 - QUESTIONS DE LINGUISTIQUE I**
- **125-608 - QUESTIONS DE LINGUISTIQUE II**

Séminaires spécialisés

125-550 - LECTURES GUIDÉES I
125-551 - LECTURES GUIDÉES II
- **125-560 - ASPECTS DE CULTURE FRANÇAISE ET QUÉBÉCOISE I**
- **125-561 - ASPECTS DE CULTURE FRANÇAISE ET QUÉBÉCOISE II**

125-600 - TRAVAUX DIRIGÉS I
- **125-601 - TRAVAUX DIRIGÉS II**
- **125-609 - CRÉATION LITTÉRAIRE I**

- 125-611 – CRÉATION LITTÉRAIRE II
- 125-612 – SÉMINAIRE DE RECHERCHE I
- 125-613 – SÉMINAIRE DE RECHERCHE II
- 125-700 EXAMEN PRÉLIMINAIRE GÉNÉRAL (Ph.D.)
- 125-701 – EXAMEN PRÉLIMINAIRE SPÉCIALISÉ (Ph.D.)
- 125-711 – SÉMINAIRE DE DOCTORAT

Critique, méthodologie, esthétique et théorie littéraire

- 125-590 – CRITIQUE I
- 125-591 – CRITIQUE II
- 125-614 – LITTÉRATURE ET HISTOIRE
- 125-615 – LITTÉRATURE ET SOCIÉTÉ
- 125-616 – LITTÉRATURE ET LINGUISTIQUE
- 125-617 – LITTÉRATURE ET PSYCHOLOGIE
- 125-621 – PROBLÈMES D'ESTHÉTIQUE LITTÉRAIRE
- 125-623 – RELATIONS LITTÉRAIRES
- 125-624 – QUESTIONS DE GENRE I
- 125-626 – QUESTIONS DE GENRE II
- 125-628 – PROBLÈMES DE THÉORIE LITTÉRAIRE
- 125-629 – HISTOIRE DES IDÉES
- 125-634 – THÈME DE LITTÉRATURE FRANÇAISE I
- 125-635 – THÈME DE LITTÉRATURE FRANÇAISE II
- 125-637 – LITTÉRATURE ET AUTRES ARTS I
- 125-638 – LITTÉRATURE ET AUTRES ARTS II
- 125-695 – INITIATION À LA RECHERCHE LITTÉRAIRE

Domaine français

- 125-720 – MOYEN AGE I
- 125-721 – MOYEN AGE II
- 125-722 – XIVe ET XVe SIÈCLES
- 125-723 – XVIe SIÈCLE I
- 125-724 – XVIe SIÈCLE II
- 125-725 – XVIe SIÈCLE III
- 125-726 – XVIIe SIÈCLE I
- 125-727 – XVIIe SIÈCLE II
- 125-728 – XVIIIe SIÈCLE III
- 125-729 – XVIIIe SIÈCLE I
- 125-730 – XVIIIe SIÈCLE II
- 125-731 – XVIIIe SIÈCLE III
- 125-732 – XIXe SIÈCLE I
- 125-733 – XIXe SIÈCLE II
- 125-734 – XIXe SIÈCLE III
- 125-735 – XIXe SIÈCLE IV
- 125-736 – XIXe SIÈCLE V
- 125-737 – XXe SIÈCLE I
- 125-738 – XXe SIÈCLE II
- 125-739 – XXe SIÈCLE III
- 125-740 – XXe SIÈCLE IV
- 125-741 – XXe SIÈCLE V

Domaine québécois

- 125-750 – ROMAN QUÉBÉCOIS I
- 125-751 – ROMAN QUÉBÉCOIS II
- 125-752 – ROMAN QUÉBÉCOIS III
- 125-763 – ROMAN QUÉBÉCOIS IV
- 125-764 – ROMAN QUÉBÉCOIS V
- 125-753 – CONTE QUÉBÉCOIS I
- 125-754 – CONTE QUÉBÉCOIS II
- 125-755 – POÉSIE QUÉBÉCOISE I
- 125-756 – POÉSIE QUÉBÉCOISE II
- 125-765 – POÉSIE QUÉBÉCOISE III
- 125-766 – POÉSIE QUÉBÉCOISE IV
- 125-757 – THÉÂTRE QUÉBÉCOIS I
- 125-758 – THÉÂTRE QUÉBÉCOIS II
- 125-759 – THÉÂTRE QUÉBÉCOIS III
- 125-760 – LITTÉRATURE ET SOCIÉTÉ QUÉBÉCOISE
- 125-761 – THÈME DE LITTÉRATURE QUÉBÉCOISE I
- 125-762 – THÈME DE LITTÉRATURE QUÉBÉCOISE II
- 125-682 – ESSAI QUÉBÉCOIS
- 125-694 – LITTÉRATURE QUÉBÉCOISE ET IDÉOLOGIE

C7 DEPARTMENT OF GERMAN

Samuel Bronfman Building
1001 Sherbrooke St. West
Montreal, PQ
Canada H3A 1G5

STAFF

Professors – A. ARNOLD; P. DALY *(Chairman)*
Associate Professors – E. GALLATI; . GOLDSMITH-REBER; A. HSIA; H. RICHTER; J. SCHMIDT; I. SCHUSTER
Assistant Professor – D. SAKAYAN

REQUIREMENTS

In order to be admitted to graduate work in German the candidate must have a B.A. degree with Honours or Joint Honours in German from McGill University, or hold an equivalent degree from another college or university of recognized standing, or have completed a course of studies of equivalent value at such an institution.

Candidates who do not possess these prerequisites may, with special permission, enter the department as qualifying students for the purpose of completing these preliminary studies. In order to be admitted to graduate work in German, the candidate must have

a) considerable fluency in German (all lectures are in German),
b) a good knowledge of German literature from the Baroque period to the 20th century,
c) a good knowledge of the History of the German Language. Students may satisfy this requirement by completing German 129-500A, 129-501B and/or 125-510A, 129-511B during their first graduate year at McGill.

Graduate students holding a Teaching Assistantship or who are otherwise employed

will normally not be allowed to take more than four half courses a year. Students may be required to attend an approved course in English in their knowledge of that language is judged inadequate. All graduate students are required to attend the staff-student colloquium.

Requirements for the M.A. Degree

At least the equivalent of three full courses must be taken. Students are permitted to take one half course in another discipline.

Students are normally expected to complete degree requirements in two years. They are expected to begin work on their thesis before the end of the first session. The thesis should be roughly 80 to 100 pages in length, should demonstrate ability to organize the material under discussion, and should be succinct and relevant. There are no comprehensive examinations.

Requirements for the Ph.D. Degree

After completing the B.A. degree with Honours or the equivalent, a student will normally take the equivalent of eight full courses. After completing the M.A. degree or its equivalent, a student must take at least the equivalent of four full courses. Students are encouraged to complete one quarter of their course load in another discipline.

After the session in which the course work is completed, a candidate will be required to pass a comprehensive examination. Candidates will be required to pass a reading test in one language other than English and German. Usually this language is French, but for those specializing in German Literature before 1600 the test may be in Latin.

Original research leading to new insights is a prerequisite for the acceptance of a Ph.D. thesis. After acceptance of the thesis, candidates must defend their theses before a committee.

As a rule, it will take a candidate at least four years after the B.A. degree to complete the requirements for the Ph.D. degree. Students who have not spent an appreciable length of time in a German speaking country are advised to spend one year at a university in such a country, for which credit may be given in the above program.

COURSES FOR HIGHER DEGREES

Courses are normally given in the form of seminars, and may be rated as full or half courses. Each year, the Department publishes a list of those offerings which will be available in the ensuing session. These lists are available from the departmental Secretary or from the Graduate Faculty office, normally in the month of May.

Each year the Department offers courses in some of the following areas:

129-605-09, 705-09A,B MEDIEVAL GERMAN LITERATURE.

129-610-14, 710-14A,B GERMAN LITERATURE IN THE AGE OF THE RENAISSANCE AND THE REFORMATION.

129-615-19, 715-19A,B GERMAN LITERATURE OF THE BAROQUE AND ROCOCO.

129-620-24, 720-24A,B GERMAN LITERATURE OF THE ENLIGHTENMENT.

129-625-29, 725-29A,B GERMAN LITERATURE OF THE STURM AND DRANG PERIOD.

129-630-34, 730-34A,B GERMAN CLASSICISM.

129-635-39, 735-39A,B GERMAN ROMANTICISM.

129-640-44, 740-44A,B GERMAN REALISM AND EARLY NATURALISM.

129-645-49, 745-49A,B GERMAN LITERATURE IN THE 20TH CENTURY.

129-650-54, 750-54A,B GERMAN LINGUISTICS AND PHILOSOPHY.

129-655-59, 755-59A,B LITERARY THEORY AND CRITICISM.

129-660-64, 765-69A,B COMPARATIVE LITERATURE STUDIES.

129-665-69, 765-69A,B SEMINAR ON TEACHING METHODS

129-670-74, 770-74A,B STAFF-STUDENT SEMINAR ON LITERARY PROBLEMS.

129-675A,B RESEARCH SEMINAR.

Ph.D. Language Tests

For Ph.D. candidates who are required to pass a reading test in German the following course is offered.

129-004D GERMAN. READING COURSE. (2 hours; *Text:* H. Jannach; *German for Reading Knowledge;* 2nd edition. Van - Nostrand - Reinhold Co.). Method and Practice of Translation. This course is intended for students preparing to fulfill the language requirement for the Ph.D. degree.

C8 DEPARTMENT OF HISPANIC STUDIES

Samuel Bronfman Building
1001 Sherbrooke St. West
Montreal, PQ
Canada H3A 1G5

STAFF

Professor – S. LIPP
Associate Professors – M. AMASUNO; M. HARVEY; N. MARTINEZ; A. MICHALSKI *(Chairman);* V. OUIMETTE; K.M. SIBBALD; V. UGALDE-CUESTA

Requirements for the M.A. Degree

In order to be admitted to graduate work in Spanish, the candidate must fulfil the following prerequisites:

a) Candidates must possess a B.A. degree with Honours or in certain cases Joint Honours in Spanish from McGill University, or an equivalent degree from another college or university of recognized standing.
b) Candidates who do not possess the above prerequisites may, with special permission, enter the Department as qualifying students for the purpose of completing these preliminary studies.

Graduate students holding a Teaching Assistantship or who are otherwise employed will normally not be allowed to take more than two full courses a year. Students may be required to attend an approved course in English or French if their knowledge of either of these languages is deemed inadequate.

Candidates must take the equivalent of four full courses which will be chosen, in consultation with the Department, from the categories listed below. It is strongly recommended that the half course on Methods of Literary Analysis be taken in the first year. The other courses may be spread over a period of not more than two years.

Within six months after completion of course work, candidates will normally be expected to pass a comprehensive examination, after which they will present a thesis of 80 to 100 pages. (See *Faculty Regulations* for deadlines).

Courses for the M.A. Degree

144-601D M.A. COMPREHENSIVE EXAMINATION.

144-602A METHODS OF LITERARY ANALYSIS.
Professor Martinez

144-605-609A,B PROBLEMS OF LITERARY THEORY AND CRITICISM.

144-610-614A,B SPANISH LINGUISTICS AND PHILOSOPHY.

144-620-624A,B SPANISH LITERATURE OF THE MIDDLE AGES.

144-625-629A,B SPANISH THEATRE OF THE GOLDEN AGE.

144-630-634A,B SPANISH POETRY OF THE GOLDEN AGE.

144-635-639A,B SPANISH PROSE OF THE GOLDEN AGE.

144-640-644A,B CERVANTES.

144-645-649A,B SPANISH NEOCLASSICISM AND ROMANTICISM.

144-650-654A,B SPANISH REALISM AND NATURALISM.

144-655-659A,B SPANISH LITERATURE FROM 1898 TO 1936.

144-660-664A,B SPANISH LITERATURE SINCE THE CIVIL WAR.

144-665-669A,B SPANISH AMERICAN LITERATURE OF THE COLONIAL PERIOD.

144-670-674A,B SPANISH AMERICAN THEATRE.

144-675-679A,B SPANISH AMERICAN POETRY.

144-680-689A,B SPANISH AMERICAN PROSE.

144-690-694A,B SPECIAL TOPICS.

144-790D Ph.D. LANGUAGE REQUIREMENT.
(For students in other departments).

Qualified students wishing to pursue their studies towards a Ph.D. in Spanish should consult the Chairman of the Department.

C9 INSTITUTE OF ISLAMIC STUDIES

Stephen Leacock Building
Room 817
855 Sherbrooke St. West
Montreal, PQ
Canada H3A 2T7

STAFF

Professors – AHMAD ABU-HAKIMA; CHARLES J. ADAMS; ISSA J. BOULLATA; HERMANN LANDOLT *(on leave);* DONALD P. LITTLE
Assistant Professors – M. HASHIM KAMALI; A. UNER TURGAY
Visiting Professors – MEHDI MOHAGHEGH; BERNARD WEISS
Head Librarian – RAJA DIRLIK
Specialist Librarian – JAN WERYHO

The Institute is concerned with the disciplined study of the Islamic tradition – involving faith, a society, and a civilization – throughout the scope

of its history and geographical spread. The program gives attention to the origins of the tradition, the changes through which it has passed, and the evolution it is currently experiencing. It also considers the contemporary dynamics of the Islamic world, as non-Muslims attempt to appreciate it with insight, as Muslims seek to relate their heritage to present conditions of modernity, and both to communicate.

The Islamic Studies Library is especially strong in its reference materials and periodical holdings for the Islamic regions. The collection, one of the largest in North America, contains approximately 75,000 volumes in the provincial European languages as well as in Arabic, Persian, Turkish, Urdu and other Islamic languages.

NOTE The section *"General Information and Regulations"* supplements the information contained in this Announcement and should be obtained from the Institute.

DEGREES

Courses of study and research are offered leading to the degrees of M.A. and Ph.D. in Islamic Studies.

REQUIREMENTS

Admission

All successful applicants are initially admitted as M.A. candidates and should hold a B.A. degree with high standing in the Humanities or Social Sciences, preferably in Islamic or Middle Eastern Studies.

M.A. Degree

The requirements, in general, consist of a minimum of five full year courses (or equivalent), plus course 397-603A Research Materials for Islamic Studies unless specific exemption is granted, knowledge of Arabic at the second year level, and a thesis. (First year Arabic, Course No. 397-521D may not be counted among the five required courses, and at least one course must be a 700 level seminar offered by the Institute).

Ph.D. Degree

Students normally enter the Ph.D. program after completing the McGill M.A. degree with high standing, a minimum grade of 'good' on the thesis, and with the approval of the Institute.

(a) five full courses (or equivalent) beyond the M.A. level, including two 700 level seminars offered by the Institute
(b) knowledge of an Islamic language, other than Arabic, at the second year level
(c) comprehensive examinations in four fields (1) Islamic history (2) Islamic thought (3) Islamic institutions (4) modern developments in the Islamic world
(d) reading knowledge of (1) French *or* German at an advanced level, or (2) French *and* German at an elementary level
(e) a dissertation judged to contain original research

COURSES FOR HIGHER DEGREES

- **397-504D THE ISLAMIC TRADITION.** (6 credits; 3 hours). The Islamic community and the elements of its tradition – scripture, prophet, doctrine, practices, institutions – considered historically and in terms of religious meaning. (Offered in alternative years.) (Not open to students who have taken 260-450D or 397-604D).

- **397-510D HISTORY OF ISLAMIC CIVILIZATION: THE CLASSICAL PERIOD.** (6 credits; 3 hours). The origins of the early Islamic state in Arabia and the Umawi Caliphate. The growth of an Islamic civilization, and the 'Abbasi Empire' until the Seljuk period. The rise of the Fatimis. The Caliphate of Cordoba. (Offered in alternate years). (Not open to students who have taken 397-610D).

  397-511D HISTORY OF ISLAMIC CIVILIZATION: THE MEDIEVAL PERIOD. (6 credits; 3 hours). The Seljuks, and the medieval synthesis. The Moors in Spain and North Africa. The Crusades The Mongols and the destruction of the Baghdad Caliphate. The Mamluk, Persian, Turkish and Indian Empires until 1700. (Offered in alternate years). (Not open to students who have taken 397-611D).
  Professor Little

  397-521D INTRODUCTORY ARABIC. (6 credits; 5 lecture hours and laboratory). (Not open to students who have taken 397-100D or 397-621D).
  Professor Boullata

  397-522D LOWER INTERMEDIATE ARABIC. (6 credits; 4 lecture hours and laboratory; Prerequisite: 397-521D or equivalent). (Not open to students who have taken 397-200D or 397-622D).
  Professor Weiss

  395-531D SURVEY OF THE DEVELOPMENT OF ISLAMIC THOUGHT. (6 credits; 3 hours). A survey of the development of the major intellectural traditions of Islamic civilization (jurisprudence, philology, philosophy and theosophy) in mediaeval and modern times. (Offered inalternate years.)
  Professor Weiss

- **397-602D SURVEY OF ISLAMIC PHILOSOPHY.** (3 hours). A history of the attempts of Muslim thinkers to adapt Greek philosophy to Islamic revelation; study of the Translation Movement, the Mu'tazila, and the rise of Kalam; readings in al-Kindi, al-Farabi, Ibn Sina, Ibn Rushd, al-Razi, and other important Muslim philosophers.

  397-603A RESEARCH MATERIALS FOR ISLAMIC STUDIES. (1 hour). A practical introduction to the

materials academically available for these studies. Some preliminary discussion of research methods, of the preparation of reports and essays; documentation; transliteration. Particular attention is given to the special reference books and serials used in the field.
Staff

- **397-605D ARABIC LITERATURE: A.D. c500-1970s.** (3 hours). A historical survey of Arabic literature from pre-Islamic to modern times, emphasizing major poets and writers and considering change in themes, genres, techniques and thought. Available English translation will be used.

397-614D THE HISTORY OF ISLAMIC INDIA. The Arabs in India; the establishment of the Delhi Sultanate; the interaction of Islam and Hinduism. The Mughals; political history; social, intellectual, and religious trends. The fall of the Mughals and the end of Muslim rule in India.
Professor Adams

- **397-615A,B HISTORY OF THE ISLAMIC EAST (1256-1700).** (2 hours). A survey of the development of Islamic civilization in Iran, Iraq, Anatolia, and Central Asia after the Mongol invasions until the collapse of the Safavid dynasty; the Ilkhanid, Timurid, and Safavid dynasties.

397-623D HIGHER INTERMEDIATE ARABIC. (3 hours; Prerequisite: 397-522D or equivalent).
Professor Little

- **397-624D ADVANCED ARABIC.** Reading in Arabic source material, usually in conjunction with thesis research.

397-631D INTRODUCTORY TURKISH. (5 hours).
Professor Turgay

- **397-632D LOWER INTERMEDIATE TURKISH.** (3 hours; Prerequisite: 397-631D or equivalent).

397-633D HIGHER INTERMEDIATE TURKISH. (3 hours; Prerequisite: 397-632D or equivalent).
Professor Turgay

- **397-634D ADVANCED TURKISH.** Reading of Turkish source material, usually in conjunction with thesis research.

397-641D INTRODUCTORY PERSIAN. (3 hours; Prerequisite: 397-521D or equivalent).
Professor Kamali

397-642D LOWER INTERMEDIATE PERSIAN. (3 hours; Prerequisite: 397-641D or equivalent).
Professor Mohaghegh

- **397-643D HIGHER INTERMEDIATE PERSIAN.** (3 hours; Prerequisite: 397-642D or equivalent).
- **397-644D ADVANCED PERSIAN.** Reading of Persian source material, usually in conjunction with thesis research.
- **397-670D ISLAMIC ART AND ARCHITECTURE.** Study of the development of Islamic art and architecture as related to the principles of Islam as a religion and regional traditions.

397-680A PRO-SEMINAR IN OTTOMAN INSTITUTIONS. (Seminar 2 hours). The course will deal with the major Ottoman political, social and economic institutions such as the bureaucracy (central and provincial), the military, the land tenure system *(timar, iltizam, ayans,* the Land Code of 1858), the judicial system *(seriat, kanuns,* and the courts), religious organizations *(ulema, medreses, tarikats)* and guilds.
Professor Turgay

- **397-700D Ph.D. PRELIMINARY EXAMINATION IN ISLAMICS. RESEARCH SEMINAR.** For all students writing theses and all others engaged in research.

397-704D ISLAMIC THEOLOGY. (Seminar 2 hours). A study of significant aspects of the Muslims' attempt to give intellectual expression to their faith in different periods in the past.
Professor Mohaghegh

- **397-705D STATE AND GOVERNMENT IN ISLAM.** (Seminar 2 hours). A survey of the evolution of the various patterns and concrete manifestations of Muslim political theory and practice through the classical and mediaeval periods of Islamic history. The rise of modern states and political problems in various Muslim countries.
- **397-706D ISLAMIC LAW.** The nature of the law, its origins and historical development, the mediaeval schools of law, modern evolution of the law, and its role in Islamic religious and political thought.
- **397-708D QUR'AN EXEGESIS** (Seminar 2 hours). A study of two or three suras taken as units, and of a number of Qur'anic passages and key works. Attention will be given to issues of style, form and chronology, as well as to the content matter; the latter including a consideration of the history of the interpretation of these actions.
- **397-710D SHI'AH THOUGHT.** (Seminar 2 hours). A history of thought among the Shi'ah with consideration of important thinkers, movements and books.
- **397-711A ISLAMIC JURISPRUDENCE (USUL AL-FIQH).** (Seminar 2 hours; Prerequisite: Reading knowledge of Arabic). A study of the sources of Islamic Law (usul al-figh) according to Muslim jurists, both Sunni and Shi'i.
- **397-712B ISLAMIC CONSTITUTIONAL LAW.** (Seminar 2 hours; Prerequisite: Reading knowledge of Arabic). Theories of government, caliphate, imamate, judicial and semi-judicial organizations; Rights and obligations of the individual and the state.

397-713A ISLAMIC LAW OF PERSONAL STATUS, I. (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). Marriage, essential requi-

rements and formalities of the marriage contract – guardianship, dower, maintenance and polygamy; divorce, its essential requirements and variations in both Sunni and Shi'i law. Modern reforms in marriage and divorce.
Professor Kamali

397-714B ISLAMIC LAW OF PERSONAL STATUS, II. (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). Succession, competence to inherit, legal heirs and their entitlements; administration of estates, bequests, gifts and religious endowments in both Sunni and Shi'i law. Modern legislative reforms in various Muslim countries.
Professor Kamali

397-721D ISLAMIC DEVELOPMENTS IN THE MODERN ARAB WORLD. (Seminar 2 hours). Internal reform movements and responses to external pressure, 1800 to the present.
Professor Abu-Hakima

397-722D THE DEVELOPMENT OF SECULARISM IN MODERN TURKEY. (Seminar 2 hours). An analysis of the transition from Ottoman institutions and ideas to those of republican Turkey.

397-723D ISLAMIC DEVELOPMENTS IN MODERN INDIA AND PAKISTAN. (Seminar 2 hours). Significant movements in Islamic thought and political action, since the Mughul downfall. The influence of Sirhindi; Waliyullah and his school; the Mujahidin; 1857, De'oband; Aligarh; Azad and Muslim participation in Indian nationalism; Iqbal; Pakistan. The Munir Report; Pakistan constitutional and ideological issues; Muslims in India since partition.
Professor Adams

397-725D THE ISLAMIC HISTORY OF WEST AFRICA. (Seminar 2 hours). A study of the Islamic role in the development of institutions and ideas in the western and central Sudan, from the 11th century to the present day with special reference to (i) relations with the wider Muslim World, (ii) sources, literary and archaeological, for a study of this area.

397-726D ISLAMIC DEVELOPMENTS IN MODERN IRAN. (Seminar 2 hours). Social, economic an political developments from about 1800 to the present.

397-727D MODERN HISTORY OF THE GULF STATES. (Seminar 2 hours). The history of the Arabian Peninsula in modern times with special emphasis on the Gulf States. Concentration will be on Saudi Arabia, Kuwait, Bahrain, Qatar, the Union of the Arab Amirates, and 'Uman from the 18th century to the present.
Professor Abu-Hakima

397-732D THE RISE AND EVOLUTION OF NATIONALISM AMONG MUSLIM PEOPLES. (Seminar 2 hours). A comparative approach to the motivation and ideology in nationalist movements among Muslim peoples. Analysis of general trends and distinctive characteristics in various nationalist movements and their orientations, and the doctrinal disputes among Muslim intellectuals who attempted to explore the nature of the nation and its making in relation to universalist ideas of Islam.

397-739A/B SPECIAL TOPICS

- **397-740D THE MYSTICAL TRADITION OF ISLAM.** (Seminar 2 hours). The varieties of mystical thought in Islam, primarily as seen in Sufism, its historical development and its place in Islamic culture. Analytical study of major authors, their writings and their central problems. Reading of primary sources in Arabic and Persian.

397-745D THE PHILOSOPHICAL TRADITION IN ISLAM. (Seminar, 2 hours). The development of philosophical thought among Muslims, its classical background and its role in Islamic culture. Analytical study of major authors, their writings and their central problems. Reading of primary sources in Arabic and Persian. (For 1982-83 "the school of Isfahan: Mir Damad and Mulla Sadra").
Professor Mohaghegh

397-751B SOCIAL AND ECONOMIC DEVELOPMENTS IN MUSLIM COUNTRIES, I. (Seminar, 2 hours). A comparative analysis of economic and social transformation in various Muslim countries during the nineteenth century; external and internal causes for change; responses of government and society.
Professor Turgay

- **397-752A/B SOCIAL AND ECONOMIC DEVELOPMENTS IN MUSLIM COUNTRIES, II.** A study of development problems in Muslim countries during the twentieth century; contemporary ideas of, and policies toward, modernization as reflected in economic, social and political measures with emphasis on the relevance of Islamic values to development problems.
- **397-758A,B ARABIC HISTORIOGRAPHY: THE CLASSICAL PERIOD.** (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). Readings in early Arabic historiography and consideration of critical problems arising from the use of such materials.
- **397-759A,B ARABIC HISTORIOGRAPHY: THE MEDIAEVAL PERIOD.** (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). Readings in Arabic historiography dating from the 11th century and later. Consideration of critical problems arising from the use of such materials.
- **397-763A,B MEDIAEVAL ARABIC DIPLOMATIC.** (Seminar 2 hours; Prerequisite: Reading knowledge of Arabic). The development and analysis of mediaeval documents and the study of Islamic chancery theory and practice with emphasis on the Mamluk period.

- **397-764D OTTOMAN HISTORY.** (Seminar 2 hours). A critical examination of significant developments in political, social and economic spheres.

397-778A THE QUR'AN AND ARABIC STYLISTICS. (Seminar, 2 hours). The style of the Qur'an will be analyzed in a critical reading of Arabic texts on the theory of inimitability *(i'jaz)*.
Professor Boullata

- **397-780D STUDY OF A MAJOR ARAB AUTHOR.** Critical reading and discussion of the works of a major author in Arabic studies against the background of his times.
- **397-785A,B MODERN ARABIC LITERATURE I.** (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). A study of trends in Arabic literature during the 19th century, with emphasis on the literary and intellectual awakening *(al-nahda)*.

397-786B MODERN ARABIC LITERATURE II. (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). An examination of developments in Arabic literature during the 20th century, with special attention to change resulting from the encounter between modernity and tradition.
Professor Boullata

C10 DEPARTMENT OF ITALIAN

Samuel Bronfman Building
1001 Sherbrooke St. West
Montreal, PQ
Canada H3A 1G5

STAFF

Professors – A. D'ANDREA; PAMELA D. STEWART *(Chairman)*
Associate Professor – MICHELANGELO PICONE

REQUIREMENTS

The B.A. degree with Honours or Joint Honours in Italian as granted by McGill University or its equivalent constitutes the minimum requirement. Applicants who do not have this prerequisite may be accepted for a Qualifying Year.

Requirements for the M.A. Degree

The Faculty regulations concerning the M.A. degree, as stated in the *General Information and Faculty Regulations* Section of the Faculty of Graduate Studies and Research Announcement, apply.

One year of course work and a thesis are required. As a rule, students must take at least three full approved courses, of which one will be Italian 132-680D (Seminar on Literary Problems). After they have completed their course work, students are required to pass a comprehensive examination (132-601D).

Course work, the comprehensive examination and the thesis must show that students have an unquestionably sound knowledge of the major literary works, and that they have developed the skills necessary to carry out scholarly research.

Courses for the M.A. Degree†

132-360D SEMINAR ON ITALIAN STYLISTICS AND COMPOSITION.

132-451A BOCCACCIO AND THE ITALIAN NOVELLA.

- **132-461A DANTE:** The Divine Comedy.

132-462B PETRARCH AND PETRARCHISM.

132-463 DANTE: THE VITA NUOVA AND OTHER MINOR WORKS.

- **132-464B MACHIAVELLI:** The Prince.
- **132-541A STRUCTURE OF THE ITALIAN LANGUAGE.**
- **132-542B HISTORY OF THE ITALIAN LANGUAGE.**

132-610D M.A. COMPREHENSIVE EXAMINATION.

132-610B BIBLIOGRAPHY OF ITALIAN LITERATURE. An introduction to the methods of research in the study of Italian Literature with a survey of the basic bibliographic apparatus. A half course, generally required of all students.

132-620A HISTORY OF LITERARY CRITICISM. Major trends in Italian literary criticism with a discussion of outstanding works of criticism.

132-630A PROBLEMS IN TEXTUAL CRITICISM. An introduction to the methods of establishing a critical text with examples taken from Italian literature.

132-640D ITALIAN LITERATURE AND THE WESTERN CULTURAL TRADITION. A study of certain aspects of Italian literature in relation to the literatures of other Western countries.

132-680D SEMINAR ON LITERARY PROBLEMS. Staff-Student discussions of particularly important and difficult texts. A full course, compulsory for all students.

†Qualified students wishing to pursue their studies towards a Ph.D. in Italian should consult the Chairman of the Department.

C11 JEWISH STUDIES PROGRAM

3511 Peel Street
Montreal, P.Q.
H3A 1W7

STAFF

Professors - HARRY M. BRACKEN; RUTH WISSE
Associate Professors - B. BARRY LEVY *(Chairman);* LAWRENCE KAPLAN *(on leave);* EUGENE ORENSTEIN
Assistant Professors - GERSHON HUNDERT; JEROME KUTNICK

I ADMISSIONS

The Jewish Studies Program accepts graduate students in two specific, clearly defined areas: The History of Jewish Interpretation of The Bible and East European Jewish Studies. While these are broadly construed to accommodate the range of our research interests, students whose interests do not relate to either of these fields are encouraged to consider other options. A generalist M.A. in Jewish Studies is not offered.

All applicants to the graduate program must hold an honors B.A. in Jewish Studies or the equivalent. Preferably, this degree will include both the general background necessary to acquaint the undergraduate with the range of Jewish Studies as well as appropriate concentration in one or more areas integral to the proposed focus of graduate study. In addition, students pursuing programs in The History of Jewish Interpretation of the Bible must demonstrate fluency in Hebrew, and those pursuing programs in East European Jewish Studies must demonstrate fluency in either Hebrew or Yiddish. Students, whose backgrounds are, in the opinion of the staff, inadequate in one or more areas will be required to pursue qualifying programs to eliminate these deficiencies. Applicants are also required to submit samples of their academic work in Jewish Studies as well as the appropriate references, transcripts and, if possible, Graduate Record Examination Scores. A personal interview is strongly recommended but not required.

II REQUIREMENTS

A. M.A.

Area I - THE HISTORY OF JEWISH INTERPRETATION OF THE BIBLE

All students must complete course 135-512A/B, if possible, in the first year of residency. In addition, students must pass comprehensive 135-601D including a) an examination on The History of Biblical Interpretation, and b) an examination on the contemporary critical scholarship related to one Biblical book. Students must also master an additional language (not Hebrew) in which primary documents of Jewish Biblical interpretation have been written; in most cases this will be Aramaic. Other courses, seminars, and directed study projects will complete the university residency requirements. A thesis is mandatory.

Area II - EAST EUROPEAN JEWISH STUDIES

All students must complete comprehensive examination 135-601D, which will be prepared by the department coordinator in conjunction with the student's dissertation adviser. Students must master a second Jewish language, Hebrew or Yiddish, depending on which was presented in fulfillment of the language requirement for admission. Other courses, seminars and directed study projects will complete the university residency requirements. A thesis is mandatory.

B. Ph.D.

Interested candidates should consult the chairman for details on the preparation of a specially designed, *ad hoc* program of study.

NOTE: For additional information please consult the Faculty of Graduate Studies and Research *General Information and Faculty Regulations* section.

III COURSES FOR HIGHER DEGREES

THE HISTORY OF JEWISH INTERPRETATION OF THE BIBLE

135-506A ARAMAIC LANGUAGE Introduction to classical Aramaic, primarily the dialects used by Jews: Biblical Aramaic, Qumran Aramaic, Samaritan, Palestinian and Babylonian Talmudic. The approach will be comparative enabling the acquisition of reading skills in these dialects. Texts will be selected from Aramaic Bible translations and interpretations.
Professor B. Levy

135-507B THE HISTORY OF THE TEXT OF THE HEBREW BIBLE. The text of the Hebrew Bible as it evolved between antiquity and the most recent printed edition. Attention will be given to 1) the accurate reconstruction of the Bible from primary and secondary witnesses: Greek and Aramaic translations, Dead Sea Scrolls, ancient quotations, etc., 2) the Massoretic notes and lists which have been appended: vocalization and accentuation systems, Qeri and Kethib, "emendations of the scribes", etc. Ancient Hebrew inscriptions and Bible manuscripts will provide the bulk of the texts studied.
Professor B. Levy

135-512A THE HISTORY OF JEWISH INTERPRETATION OF THE BIBLE. The literature and hermeneutics of Jewish Biblical Interpretation historically considered: Hellenistic literature; Dead Sea Scrolls; Midrashim, Targumim, Talmudim; Medieval Commentators, Linguists and Philosphers; the Haskalah, etc.
Professor B. Levy

- **135-538A, 539B, 540A, 541B TOPICS IN BIBLICAL INTERPRETATION** Supervised research in Jewish Interpretation of The Bible. Work will focus on one theme, issue or commentator.
Professor Kaplan

135-542A, 543B, 544A, 546A, 547B, 548A, 549B SELECTED TOPICS IN BIBLICAL INTERPRETATION. Advanced level directed study in Jewish interpretation of The Bible. Work will focus on one theme, issue or commentator. Given in 1982-83: 135-542B. Readings in Aramaic Bible Translations. Prerequisite: Reading knowledge of Aramaic (students lacking this knowledge should register for 135-506A in September). Selections from Aramaic Bible Translations in printed and manuscript form: Onkelos, Pseudo-Jonathan, The Palestinian Targum, Peshitta, and Targum of the Hagiographa.
Professor B. Levy

135-554A MODERN JEWISH BIBLICAL SHCOLARSHIP. An analysis of the attempt on the part of Jewish scholars in the modern era to create a Biblical scholarship that would meet the objective universal standards of critical, historical scholarship and at the same time be distinctively Jewish. Among figures to be discussed are Mendelsohn, Luzzato, Krochmal, Hoffman, Buber, Rosenweig, Kaufman, Cassuto, and such contemporary figures as R. Gordis and M. Greenberg.
Professor Kaplan

- **135-556A, 557B, 558A, 559B PROBLEMS IN MEDIEVAL BIBLICAL INTERPRETATION.** The interaction of intellectual trends in the Jewish and medieval world and how they affected Jewish interpretation of the Bible.
Professor Kaplan

135-601D M.A. COMPREHENSIVE EXAMINATION. Comprehensive examination in Jewish Studies. Subject matter and reading lists to be provided by faculty in accordance with student's needs and interest.
Professor B. Levy

EAST EUROPEAN JEWISH STUDIES

135-530A, 531A, 533B TOPICS IN YIDDISH LITERATURE. Supervised research in Yiddish literature. Work will focus on one genre, literary school or author.
Professors Wisse and Orenstein

- **135-553B THE HISTORY OF MODERN JEWISH SECULARISM.** The rise and development of Jewish secularism, i.e. the various ideologies which attempt to define the Jews in sociocultural, national and historical terms, will be analyzed within the context of modern European nationalism. Selected texts of the Jewish Enlightenment, Peretz Smolenskin, Leon Pinsker, Simon Dubnow, Chaim Zhitlowsky and Ahad Ha-Am will be studied.
Professor Orenstein

135-560A, 561B TOPICS IN MODERN JEWISH THOUGHT. This course will analyze the place of Judaism and the Jewish people in modern culture and civilization as reflected in the writings of such Jewish thinkers as Mendelssohn, Cohen, Rosenzweig, Kook, Soloveitchik and Leibowitz.
Professor Kaplan

135-585A, 586B TUTORIAL IN EAST EUROPEAN STUDIES. Directed research in the historical, cultural and literary monuments of Jewry in Eastern Europe.
Professors Wisse and Orenstein

135-587A, 588B SEMINAR IN JEWISH LITERATURE. (3 credits). Given in 1982-83: 135-588B The Novel. Students may focus on the development of the modern Jewish novel in Yiddish, Hebrew or English.
Professor Wisse

101-655B TUTORIAL IN JEWISH HISTORY. Tutorial and/or seminar work in aspects of Jewish History which are not included in the regular course offerings of the Jewish Studies Program or Department of History.
Professor Hundert

135-601D M.A. COMPREHENSIVE EXAMINATION. Comprehensive examination in Jewish Studies. Subject matter and reading lists to be provided by faculty in accordance with student's needs and interests.
Professor Wisse

C12 DEPARTMENT OF LINGUISTICS

Samuel Bronfman Building
1001 Sherbrooke St. West
Montreal, PQ
Canada H3A 1G5

STAFF

Professors - C.D. ELLIS *(Chairman);* A.A. RIGAULT
Associate Professors - I. BELLERT; M. GOPNIK; M. PARADIS; G.L. PIGGOTT
Assistant Professors - N. DOMINGUE; R. FREIDIN

REQUIREMENTS

Admission

Candidates must hold a B.A. degree with Honours or Joint Honours in Linguistics as granted by McGill University, or its equivalent. Applicants may be required to submit to an examination in order to determine their competence. If in the judgment of the department students have not reached the expected level of competence, they may be required to enter the Qualifying Program or advised on other ways to make up their deficiencies. Applications should be submitted by March 31.

Requirements for the M.A. and Ph.D. Degrees

1. **Degree of Master of Arts.**
   The M.A. degree requires 24 credits of approved course work and a thesis. A minimum residence of three semesters is required.

2. **Degree of Doctor of Philosophy**
   a) Candidates holding a B.A. degree with Honours in Linguistics will, upon admission, follow a program of at least three years. This will include 36 credits of approved course work and a Comprehensive Evaluation (see below 104-701D) to be completed *before beginning work on the doctoral thesis,* and, at the latest, before the beginning of the fourth year.
   b) Candidates holding an M.A. in Linguistics and who, in the judgment of the Department, possess the qualifications of Ph.D. candidates will, upon admission, follow a further two-year program approved on an individual basis by the Department. This will include not less than 12 credits of course work and the Comprehensive Evaluation (see below 104-701D), to be completed before beginning work on the doctoral thesis. Research for the thesis will normally occupy the second of the two years required for the program.

D after the number normally indicates a 6-credit (or full) course extending through two semesters: i.e., a full academic year. For purposes of course requirements an A or B course, covering one semester only, is counted as a 3-credit (or half) course.

N.B. Linguistics course offerings are currently under revision. Students are advised to consult the department for an up-to-date list.

COURSES FOR HIGHER DEGREES

Graduate Courses

104-610A EXPERIMENTAL PHONOLOGY. Speech as a motor behaviour and as an acoustical phenomenon. Speech perception. Experimentation in the Phonetics Research Laboratory.
Professor Rigault

104-620A TOPICS IN SOCIOLINGUISTICS I. An examination of some major areas in sociolinguistic research. Topics will be selected yearly from the following: the ethnography of speaking, sociocultural aspects of multilingualism, pidgins and creoles, variation studies.

104-621B TOPICS IN SOCIOLINGUISTICS II. Further investigation of issues in sociolinguistics.

104-631B PHONOLOGY III. An examination of some important issues in phonological theory and some proposals for major modifications to the standard generative model. Evaluation of some theories proposed as alternatives to the standard model.
Professor Piggott

104-660A SEMANTICS II. A study of recent proposals for the description of linguistic semantics. (Prerequisite: Permission of instructor).
Professor Bellert

- **104-661B SEMANTICS III.** An investigation of recent theories of semantics (e.g. those of Frege, Tarski, Wittgenstein, Austin, Chomsky, Katz, Lakoff) with particular attention to what counts as an explanation and what as evidence. (Prerequisite: Permission of instructor).
  Professor Gopnik

- **104-670A LINGUISTIC THEORY AND LANGUAGE ACQUISITION.** This course will consider how a restrictive theory of grammar (E.S.T.) attempts to solve the 'logical problem' of language acquisition. Concepts such as negative evidence, optimality, markedness and learnability will be explored together with ways to embed linguistic theory in a 'performance' model.

- **104-681B THEORETICAL FOUNDATIONS OF LANGUAGE TEACHING METHODS.** A critical analysis of the various competing methods, an investigation of the implicit principles behind each, and an examination of whether and/or how the explicit principles are implemented. A look at the basic assumptions shared by some or all, and an identification of the specific characteristics of each.
  Professor Paradis

104-685B SEMINAR IN TEXT LINGUISTICS. The properties of longer than sentence length linguistic units. Theories which characterize the formal properties of such units as well as theories which characterize the semantic properties of such units. Topics include: decomposition lattices, coherence of texts, presupposition patterns in dialogues and the logical representation of texts.
Professor Gopnik

- **104-690A TOPICS IN NEUROLINGUISTICS I.** A discussion of current issues in neurolinguistics

with special emphasis on the biology of language acquisition and on the neural mechanisms underlying language in the adult: the role of the right hemisphere in language; the representation of grammar and mechanisms of language use.
Professor Paradis

- **104-691B TOPICS IN NEUROLINGUISTICS II.** A discussion of current issues in neurolinguistics with special emphasis on the mechanisms of comprehension; types of aphasia; the role of the limbic system; bilingualism.
Professor Paradis

104-692A,B TUTORIAL ON A SELECTED TOPIC.

104-701D Ph.D. COMPREHENSIVE EVALUATION.

- **104-750A LINGUISTIC THEORY II.** The ways in which contemporary linguists have tried to explain the phenomenon of language. We will look at several theories and within each consider what counts as reliable evidence and counter-evidence, valid argument, law-like statement, and as a refutation of a hypothesis. Each of these considerations varies considerably from theory to theory.
Professor Gopnik

- **104-751B LINGUISTIC THEORY III.** The larger meta-theoretical question of what the appropriate criteria are for the evaluation of linguistic theories. Some criteria for describing both the logical structure and sociological structure of theories and see in what ways these criteria apply to theories of language. Arguments which suggest that the nature of explanation in the natural sciences is fundamentally different from the nature of explanation in the human sciences. Alternate criteria for the evaluation of linguistic theories.
Professor Gopnik

104-761A,B SYNTAX III. Recent developments in the theory of grammar; explication and analysis of current work in generative grammar.
Professor Freidin

- **104-770A PROBLEMS OF LANGUAGE CONTACT I.** Problems in the sociology of language, particularly those related to the description of multilingual societies. Various sociolinguistic issues like code-switching, interference, language choice, and language maintenance are considered and evaluated in the light of their influence on the languages spoken.
Professor Domingue

- **104-771B PROBLEMS OF LANGUAGE CONTACT II.** A study of the influence of one linguistic system on another in the overall competence of a speaker and in the linguistic community. Descriptive and theoretical problems are approached by examining specific instances of interference and borrowing at the various levels of linguistic organization.
Professor Domingue

104-780A SELECTED TOPICS I.

104-781B SELECTED TOPICS II.

104-782A SELECTED TOPICS III.

104-783B SELECTED TOPICS IV.

104-784D SELECTED TOPICS V.

104-786D SELECTED TOPICS VI.

104-792A,B TUTORIAL ON A SELECTED TOPIC.

104-794A,B TUTORIAL ON A SELECTED TOPIC.

RELATED COURSES

PSYCHOLOGY 204-455D RESEARCH METHODS IN PSYCHOLINGUISTICS. This course may be taken for graduate credit by students in linguistics.

Advanced Undergraduate Courses

Students deficient in certain areas may be required to take some of the following *undergraduate courses* in addition to full graduate courses.

104-250A INTRODUCTION TO GENERAL PHONETICS.

104-351B PHONOLOGY I.

104-355A MORPHOLOGY.

104-360A SYNTAX I.

104-471B FIELD METHODS OF LINGUISTICS.

104-482D FIELD OR RESEARCH PROJECT.

104-491B ADVANCED SEMINAR IN LINGUISTIC THEORY.

104-530A PHONOLOGY II.

104-540A HISTORICAL LINGUISTICS I: THEORY AND METHODS.

104-541B HISTORICAL LINGUISTICS II.

104-571A SYNTAX II.

104-580A THEORY OF SECOND LANGUAGE DEVELOPMENT.

C13 MUSIC

Strathcona Music Building
555 Sherbrooke St. West
Montreal, PQ
Canada H3A 1E3

STAFF

Professors - B. HAMBRAEUS; K. JONES; S. KONDAKS; A. LANZA; B. MATHER; D. MORTON; P. PEDERSEN *(Dean)*; C. REINER

Associate Professors – B. ALPHONCE; B. CHERNEY; M. CYR; G. DANOVITCH; M. FUKS; R. GIBSON; J. GREW; P. HELMER; E. JORGENSEN; M. KALIL; R. LAWTON; B. MINORGAN *(Chairman, Committee on Graduate Studies)*; J. REA; J. SCHMALFELDT; J. SIMONS; D. STEVEN; L. ZUK

Assistant Professors – W. CAPLIN; M. FILLION; T. PLAUNT; C. REYNOLDS; F. STOLTZFUS; J. WAPNICK; W. WOSZCZYK

PROGRAMS

The Master of Arts degree (M.A.) is available in Musicology, School Music, and Theory, and the Master of Music degree (M.Mus.) in Composition, Performance, and Sound Recording. The Doctor of Music degree (D.Mus.) is offered in Composition. Interdisciplinary studies involving Musicology or Theory are encouraged. A limited number of teaching assistantships are available in performance, school music, and the theoretical subjects of music. Inquiries should be directed to the Chairman of the appropriate department in the Faculty of Music.

ADMISSION

Masters' Degrees

Applicants for the Master's degree must hold a B.Mus. or a B.A. degree with a major or honours in music including considerable work done in the area of specialization. All applicants will be required to take entrance/placement tests. Applicants found to be deficient in their background preparation may be required to take certain undergraduate courses. Applicants to the Composition, Musicology, School Music, Sound Recording, and Theory programs are requested to submit samples of work done in their special area. Applicants to the School Music program should normally have had two years of teaching experience. All applicants to the Performance program will be required to pass an Entrance Audition. Only those applicants who clearly demonstrate the potential to become professional performers on their instruments will be admitted. A reading knowledge of German is strongly recommended as a prerequisite for graduate work in Musicology, School Music, and Theory.

D.Mus. Degree

Applicants for the D.Mus. degree must hold a M.Mus. degree in Composition, or its equivalent, and must submit scores and/or tapes of their compositions at the time of application.

REQUIREMENTS FOR THE MASTERS' DEGREES

In all programs a minimum number of formal courses are prescribed. The student's major work is expected to be thesis research, composition or performance which will be done under the supervision of an adviser. This work, as well as any additional courses and/or individual study which the department considers necessary, constitutes the central part of each program.

Applicants who hold the equivalent of this University's B.Mus. with Honours in the area of specialization may be able to complete the Master's degree in less than two years.

Composition

(a) 219-622D. Composition Tutorial, 219-631A and 219-632B. Seminar in Twentieth Century Music.
(b) Two approved half-course electives or the equivalent.
(c) Language reading examination in one of: French, German, or Italian. Students whose mother tongue is French are exempt from the French Language Reading examination.
(d) Thesis. The thesis is a composition accompanied by an analytical essay of approximately 20 to 30 pages.

Musicology

(a) Five half courses approved by the Department.
(b) Language reading examinations in German and one additional language related to the candidate's field of research. Students whose mother tongue is French are exempt from the French Language Reading examination.
(c) Thesis. The candidate will undertake supervised research leading to a thesis which will be an in-depth investigation in some specialized field of musicology.

Performance

(a) 219-690A or 219-691B. Seminar in Performance Practice.
(b) 219-697A and 219-698B. Performance Tutorial. (Students admitted to a qualifying year will receive one hour per week of practical instruction. Those who are enrolled in M.Mus. I register for the graduate Performance Tutorial, which is 1½ hours per week. Students in M.Mus. II or Additional Session may repeat the graduate Performance Tutorial upon payment of a special fee.)
(c) Three half-course graduate electives: to be selected from those offered by the Faculty of Music.

(d) Requirements for Keyboard and Guitar Performers: 219-660D. Solo Recital; 219-661D. Chamber Music Recital.
(e) Requirements for Orchestral Instrument Performers: 219-662D. Solo and Chamber Music Recital; 219-663A,B. Orchestra; 219-664A,B. Chamber Music Ensemble.
(f) Requirements for Singers: 219-665D. Voice Recital I; 219-666D. Voice Recital II.

School Music

(a) 219-610A and 219-611B. Seminar in School Music.
(b) *Either*
219-618A and 219-619B. School Music Tutorial.
or
Two approved half-course electives or the equivalent.
(c) A comprehensive examination in school music.
(d) Language reading examination in German.
(e) Thesis. The candidate will undertake supervised research leading to a thesis which will be an in-depth investigation in some specialized field of school music.

Sound Recording

(a) 219-670D. Music Recording Theory and Practice I.
219-671D. Music Recording Theory and Practice II.
219-672D. Analysis of Recordings.
219-673D. Studio Equipment Maintenance Theory and Practice.
(b) Two approved half-course electives or the equivalent.
(c) Recording Presentation. Candidates will be required to present one hour of material they have recorded.
(d) Thesis. The candidate will undertake supervised research leading to a thesis which will be an in-depth investigation in some specialized field of music recording theory or practice.

Theory

(a) Five half courses approved by the Department.
(b) Language reading examination in one of: French, German, or Italian. Students whose mother tongue is French are exempt from the French Language Reading examination.
(c) Thesis. The candidate will undertake supervised research leading to a thesis which will be an in-depth investigation in some specialized field of music theory.

REQUIREMENTS FOR THE D.MUS. DEGREE

(a) 219-722D. Doctoral Composition Tutorial (for two years).
(b) Four approved half-course electives or the equivalent.
(c) 219-701D. Doctoral Oral Comprehensive Examination and 219-702D. Doctoral Written Comprehensive Examination.
(d) Composition Performance. The candidate must present a concert of his/her compositions. With the permission of the Committee on Graduate Studies, the compositions may be presented as parts of two or three concerts.
(e) Thesis. A musical composition of major dimensions together with a written analysis of the work. The thesis must be defended in an oral examination.

Details concerning the comprehensive examinations, composition performance, thesis, and academic regulations are available from the Administrative Assistant (Admissions), or Secretary, Department of Theory, Faculty of Music.

A minimum of two years' residence is required beyond the M.Mus. in Composition, or its equivalent.

COURSES FOR HIGHER DEGREES

Graduate Courses

- **219-552A COMPUTER APPLICATIONS IN MUSIC.** (3 hours).
Professor Alphonce

219-601D MASTERS COMPREHENSIVE EXAMINATION.

- **219-602A SEMINAR IN CHORAL TECHNIQUES.** (3 hours).
- **219-603B SEMINAR IN CHORAL TECHNIQUES.** (3 hours).
- **219-606A SEMINAR IN ORCHESTRA/BAND TECHNIQUES.** (3 hours).
- **219-607B SEMINAR IN ORCHESTRA/BAND TECHNIQUES.** (3 hours).

219-610A SEMINAR IN SCHOOL MUSIC. (3 hours).
Professor Wapnick

219-611B SEMINAR IN SCHOOL MUSIC. (3 hours).
Professor Wapnick

- **219-612A SEMINAR IN SCHOOL MUSIC.** (3 hours).
- **219-613B SEMINAR IN SCHOOL MUSIC.** (3 hours).

219-618A SCHOOL MUSIC TUTORIAL.
Staff

219-619B SCHOOL MUSIC TUTORIAL.
Staff

219-622D COMPOSITION TUTORIAL.
Staff

219-623A ELECTRONIC MUSIC SEMINAR I. (3 hours seminar, 6 hours studio time).
Professor Lanza

219-624B ELECTRONIC MUSIC SEMINAR II. (3 hours seminar, 6 hours studio time).
Professor Lanza

219-625D MUSIC NOTATION SEMINAR. (3 hours).
Professor Hambraeus

219-631A SEMINAR IN TWENTIETH CENTURY MUSIC. (3 hours).

219-632B SEMINAR IN TWENTIETH CENTURY MUSIC. (3 hours).

219-633A SEMINAR IN TWENTIETH CENTURY MUSIC. (3 hours).

219-634B SEMINAR IN TWENTIETH CENTURY MUSIC. (3 hours).

219-641A ADVANCED COUNTERPOINT I. (2 hours).
Professor Jones

219-642B ADVANCED COUNTERPOINT II. (2 hours).
Professor Jones

219-648A THEORY TUTORIAL.
Staff

219-649B THEORY TUTORIAL.
Staff

219-653B MUSIC AESTHETICS AND CRITICISM. (3 hours).

219-654A SEMINAR IN MUSIC THEORY. (3 hours).

219-655B SEMINAR IN MUSIC THEORY. (3 hours).

219-656A SEMINAR IN MUSIC THEORY. (3 hours).

219-657B SEMINAR IN MUSIC THEORY. (3 hours).

219-660D SOLO RECITAL.

219-661D CHAMBER MUSIC RECITAL.

219-662D SOLO AND CHAMBER MUSIC RECITAL.

219-663A,B ORCHESTRA. (6 hours).
TBA

219-664A,B CHAMBER MUSIC ENSEMBLE.
Staff

219-665D VOICE RECITAL I.

219-666D VOICE RECITAL II.

219-670D MUSIC RECORDING THEORY AND PRACTICE I. (3 hours seminar, 6 hours studio time).
Professor Woszczyk

219-671D MUSIC RECORDING THEORY AND PRACTICE II. (3 hours seminar, 6 hours studio time).
Professor Woszczyk

219-672D ANALYSIS OF RECORDING. (3 hours).
Professor Woszczyk

219-673D STUDIO EQUIPMENT MAINTENANCE THEORY AND PRACTICE. (2 hours lecture, 3 hours laboratory).

219-675D SPECIAL PROJECT.

219-676D SPECIAL PROJECT.

219-678A MUSICOLOGY TUTORIAL.
Staff.

219-679B MUSICOLOGY TUTORIAL.
Staff.

219-680A SEMINAR IN MUSICOLOGY. (3 hours).

219-681B SEMINAR IN MUSICOLOGY. (3 hours).

219-682A SEMINAR IN MUSICOLOGY. (3 hours).

219-683B SEMINAR IN MUSICOLOGY. (3 hours).

219-690A SEMINAR IN PERFORMANCE PRACTICE. (3 hours).

219-691B SEMINAR IN PERFORMANCE PRACTICE. (3 hours).

219-692A SEMINAR IN MUSIC LITERATURE. (3 hours).

219-693B SEMINAR IN MUSIC LITERATURE. (3 hours).

219-694A, B SPECIAL TOPIC SEMINAR. (3 hours).

219-695A,B SPECIAL TOPIC SEMINAR (3 hours).

219-697A PERFORMANCE TUTORIAL.
Staff

219-698B PERFORMANCE TUTORIAL.
Staff

219-701D DOCTORAL ORAL COMPREHENSIVE EXAMINATION.

219-702D DOCTORAL WRITTEN COMPREHENSIVE EXAMINATION.

219-722D DOCTORAL COMPOSITION TUTORIAL.
Staff

Advanced Undergraduate Courses

Students deficient in their background preparation may be required to take some of the following undergraduate courses in addition to their required graduate courses.

500-level courses are available as elective courses to graduate students.

211-322D TONAL COUNTERPOINT.

211-323D MODAL COUNTERPOINT.

211-327D 19th CENTURY ANALYSIS.

211-372D CONTINUO.

211-427D 20th CENTURY ANALYSIS.

211-522D FUGUE.

211-523D ADVANCED HARMONY.

211-528A SCHENKERIAN TECHNIQUES.

211-529B PROSEMINAR IN MUSIC THEORY.

214-380B MEDIAEVAL MUSIC.

214-381A RENAISSANCE MUSIC.

214-382A BAROQUE MUSIC.

214-383A CLASSICAL MUSIC.

214-384B ROMANTIC MUSIC.

214-385B TWENTIETH CENTURY MUSIC.

214-387A OPERA LITERATURE.

214-389B ORCHESTRAL LITERATURE.

214-390B VOCAL LITERATURE.

214-391A CANADIAN MUSIC.

214-395A KEYBOARD LITERATURE BEFORE 1750.

214-396B KEYBOARD LITERATURE AFTER 1750.

214-397A CHORAL LITERATURE.

214-398A WIND ENSEMBLE LITERATURE.

214-489A HISTORY OF MUSIC THEORY.

214-490A BIBLIOGRAPHY AND RESEARCH METHODS.

214-491D PALEOGRAPHY.

215-382B PERFORMANCE PRACTICE OF BAROQUE MUSIC.

215-428B TWENTIETH CENTURY PERFORMANCE PRACTICE.

221-315B CHORAL CONDUCTING I.

221-415A CHORAL CONDUCTING II.

222-402D PROSEMINAR IN SCHOOL MUSIC.

222-403A,B SELECTED TOPICS IN SCHOOL MUSIC.

222-404A,B SELECTED TOPICS IN SCHOOL MUSIC.

223-315B INSTRUMENTAL CONDUCTING I.

223-415A INSTRUMENTAL CONDUCTING II.

Prerequisite Undergraduate Courses for Sound Recording

Faculty of Music

211-260D INTRODUCTORY ORCHESTRATION.

213-242D ELECTRONIC MUSIC.

213-300D INTRODUCTION TO MUSIC RECORDING.

Faculty of Science

189-112A FUNDAMENTALS OF MATHEMATICS.

198-224A PHYSICS AND PSYCHOPHYSICS OF MUSIC.

198-225B MUSICAL ACOUSTICS.

Faculty of Engineering

304-232A INTRODUCTION TO ELECTRO-ACOUSTICS I.

304-339B INTRODUCTION TO ELECTRO-ACOUSTICS II.

N.B. In order to be considered for admission to the Master of Music in Sound Recording, students must attain a minimum grade of B in all of the above courses and must have a B.Mus. degree with a minimum CGPA of 3.00.

C14 DEPARTMENT OF PHILOSOPHY

Samuel Bronfman Building
1001 Sherbrooke St. West
Montreal, PQ
Canada H3A 1G5

STAFF

Professors - H.M. BRACKEN; M. BUNGE; A.T. McKINNON *(Chairman);* D.F. NORTON; J.A. TRENTMAN

Associate Professors - G. DI GIOVANN; ANIL K. GUPTA *(on leave);* R. STORRS McCALL; J. McGILVRAY; W. SHEA; J.D.B. Walker*(on leave)*

Associate Members - KONSTANTIN ARVANITAKIS *(Psychiatry);* LAWRENCE KAPLAN *(Jewish Studies)*

REQUIREMENTS

Admission

Before entering upon a course of graduate studies, students will normally have completed an Honours B.A. in Philosophy, or its equivalent, that is, a degree for which they have devoted one third to one half of their curriculum to philosophy.

The applicant's competence in the subject should include the following:

(1) A general knowledge of the history of Western philosophy: Greek, Mediaeval, Modern.

(2) A systematic knowledge of the main philosophical disciplines in their contemporary as well as historical contexts:

logic, ethics, epistemology, and metaphysics.

(3) An ability to present, in written form, clear and substantial reconstructions and analyses of the materials normally studied in the areas mentioned in (1) and 2).

To demonstrate their competence in these areas applicants must submit transcripts of academic work, three letters of recommendation from persons with whom they have studied, and at least one substantial example (approximately 15-20 typewritten pages) of their written philosophical work. In addition, applicants whose first language is English are required to submit scores of the Graduate Record Examination. Applications and supporting documents should be submitted by March 15.

Requirements for the M.A. Degree

A program consistent with the requirements specified in the Faculty Regulations will be arranged for each student. This will include at least three full courses, or the equivalent, during the first year.

Requirements for the Ph.D. Degree

Students entering the Ph.D. program will follow a course of studies decided upon in consultation with their Advisory Committees. Each Ph.D. student will complete courses on diverse aspects of philosophy, and prepare for written Comprehensive Examinations in 1) Epistemology and Metaphysics; 2) Value Theory; 3) History of Philosophy; 4) Special Topics. Competence in Logic must also be demonstrated, either by written examination or by completion, with a grade of 'B' or higher, of a course approved by the Department. These examinations are to be taken in or by March of the student's second year in the program. The special interests of students will be taken into account when their course of studies is decided, and special topics examination papers are decided upon. In addition, all candidates must pass reading examinations in two (approved) languages other than their mother tongue or, on approval, two examinations at different levels of difficulty, in a single language (which cannot be the student's mother tongue). As soon as the Comprehensive Examinations are passed, the student will begin work on a dissertation. Dissertation topics must be selected within the research areas in which the Department can provide proper supervision, and within the linguistic competence of the student.

Students who enter the program without an M.A. degree or previous graduate work may be expected to complete such a degree before being advanced to the Ph.D. program.

COURSES FOR HIGHER DEGREES

107-210A INTRODUCTION TO DEDUCTIVE LOGIC. (3 hours). Propositional and predicate logic: formalization of arguments, truth tables, natural deduction and related topics.
Professor McCall

107-210B INTRODUCTION TO DEDUCTIVE LOGIC. (3 hours). See 210A above for description.

107-310B INTERMEDIATE LOGIC. A non-technical introduction to some logical topics: quantification theory, natural deduction, the theory of description, the theory of definition, soundness and completeness, elementary set theory; and one of the following: Gödel's incompleteness theorem, modal logics and their semantics.
Professor McCall

107-500B METAPHYSICS, DIALECTICS, LOGIC AND EPISTEMOLOGY. Topic for 1982-83: Individuals.
Professor McGilvray

- **107-501B METAPHYSICS, DIALECTICS, LOGIC AND EPISTEMOLOGY.**
- **107-502A METAPHYSICS I.**
- **107-503B METAPHYSICS II.**
- **107-504A PROBLEMS IN SEMANTICS I.**
- **107-505B PROBLEMS IN SEMANTICS II.**
- **107-510B INTERMEDIATE LOGIC.**
- **107-511D MEDIAEVAL LOGIC AND GRAMMAR.**
- **107-520D METHODOLOGY AND PHILOSOPHY OF SCIENCE.**
- **107-522A FORMAL METHODS IN PHILOSOPHY AND SOCIAL SCIENCE I.**
- **107-523B FORMAL METHODS IN PHILOSOPHY AND SOCIAL SCIENCE II.**
- **107-526A SCIENCE AND PHILOSOPHY IN THE 17TH CENTURY I.**
- **107-527B SCIENCE AND PHILOSOPHY IN THE 17TH CENTURY II.**
- **107-528A PHILOSOPHY OF PHYSICS I.** Topic for 1982-83: The philosophical presuppositions of physics and some of the philosophical problems posed by contemporary physics. Topics include: operational definitions, correspondence rules, the structure of theories, the empirical and conceptual tests of theories, and special problems in the foundations of relativistic physics and quantum mechanics.
  Professor Bunge
- **107-529B PHILOSOPHY OF PHYSICS II.**
- **107-530A MORAL PHILOSOPHY.**
- **107-532A SEMINAR IN PHILOSOPHY OF RELIGION I.**

- **107-533B SEMINAR IN PHILOSOPHY OF RELIGION II.**
- **107-538A SEMINAR IN THE HISTORY OF ETHICS I.**

107-539B SEMINAR IN THE HISTORY OF ETHICS II. Topic for 1982-83: The natural law tradition.
Professor Trentman

- **107-548A LEGAL AND MORAL PHILOSOPHY OF THE JEWISH TRADITION I.**
- **107-549B LEGAL AND MORAL PHILOSOPHY OF THE JEWISH TRADITION II.**

107-550A SEMINAR IN ANCIENT PHILOSOPHY. Topic for 1982-83: Scepticism primary emphasis on the writings of Sextus Empiricus and modern commentators.
Professor Bracken

- **107-551B SEMINAR IN ANCIENT PHILOSOPHY.**
- **107-552D THEMES IN THE HISTORY OF JEWISH PHILOSOPHY.**
- **107-560A SEMINAR IN 17TH AND 18TH CENTURY PHILOSOPHY.**

107-561B SEMINAR IN THE HISTORY OF PHILOSOPHY. Topic for 1982-83: Descartes & Malebranche
Professor Bracken

- **107-562D SEMINAR IN THE HISTORY OF PHILOSOPHY.**

107-564A SEMINAR IN KANT I. Topic for 1982-83: Kant's Theoretical Philosophy.
Professor DiGiovanni

- **107-565B SEMINAR IN KANT II.**

107-566B SEMINAR IN HEGEL I. Topic for 1982-83: The Phenomenology of Hegel.
Professor DiGiovanni

- **107-568A SEMINAR IN KIERKEGAARD I.**

107-569A SEMINAR IN KIERKEGAARD II. Topic for 1982-83: Readings in Kierkegaard.
Professor McKinnon

- **107-570A RECENT AND CONTEMPORARY BRITISH PHILOSOPHY**
- **107-571B RECENT AND CONTEMPORARY BRITISH PHILOSOPHY.**
- **107-580A SEMINAR IN PROBLEMS OF PHILOSOPHY.**
- **107-581B SEMINAR IN PROBLEMS OF PHILOSOPHY.**
- **107-588A SEMINAR IN SYSTEMATIC PHILOSOPHY.**

107-590A SEMINAR IN PHILOSOPHY. Topic for 1982-83: A study of a group of classical philosophical problems in modern dress, including the nature of time and the problem of timeflow, possibility and possible worlds, indeterminism, fate, counterfactual conditionals, individuals and proper names, God's omniscience and freewill.
Professor McCall

107-591B SEMINAR IN PHILOSOPHY. 1982-83.

107-699D GRADUATE SEMINAR (3 credits). An advanced graduate seminar for Ph.D. and M.A. students writing their dissertations.
Professor McGilvray

107-705A GUIDED RESEARCH IN ETHICS.

107-706B GUIDED RESEARCH IN ETHICS.

107-710A GUIDED RESEARCH IN LOGIC.

107-711B GUIDED RESEARCH IN LOGIC.

107-720A GUIDED RESEARCH IN PHILOSOPHY OF SCIENCE.

107-721B GUIDED RESEARCH IN PHILOSOPHY OF SCIENCE.

107-730A GUIDED RESEARCH IN PHILOSOPHY OF RELIGION.

107-731B GUIDED RESEARCH IN PHILOSOPHY OF RELIGION.

107-740A GUIDED RESEARCH IN ANCIENT PHILOSOPHY.

107-741B GUIDED RESEARCH IN ANCIENT PHILOSOPHY.

107-750A GUIDED RESEARCH IN MEDIEVAL PHILOSOPHY.

107-751B GUIDED RESEARCH IN MEDIEVAL PHILOSOPHY.

107-760A GUIDED RESEARCH IN HISTORY OF PHILOSOPHY.

107-761B GUIDED RESEARCH IN HISTORY OF PHILOSOPHY.

107-770A/771B GUIDED RESEARCH IN PHILOSOPHY OF POLITICS.

107-780A/781B GUIDED RESEARCH IN EPISTEMOLOGY AND METAPHYSICS

Several courses primary philosophical in content are available in other departments. Note in particular the offerings in Classics, Jewish Studies, and the Islamic Institute.

C15 RELIGIOUS STUDIES

3520 University Street
Montreal, PQ
Canada H3A 2A7

STAFF

Professors - J.C. McLELLAND *(Dean);* C.J. ADAMS; R.C. CULLEY; D.J. HALL
Associate Professors - J.A. BOORMAN; E.J. FURCHA; D.R. RUNNALLS; R.W. STEVENSON *(on leave first term 1982-83);* F. WISSE; K. YOUNG
Associate Professors - T. RAHULA; N.T. WRIGHT
University lecturer - A. HEJIB *(on leave 1982-83)*
Faculty Lecturers - G. JOHNSTON; W. KLEMPA; M. PEASTON

REQUIREMENTS

Requirements for admission to the courses leading to the degrees of M.A., S.T.M. and Ph.D. are stated in the *General Information and Faculty Regulations* section. Further information is given in the *Announcement of the Faculty of Religious Studies.*

COURSES FOR HIGHER DEGREES

The staff offers each session a selection from the following list of courses, and is prepared to guide students in thesis research on approved topics, within any of the following fields: Old Testament language and literature; New Testament language and literature; Church History; Comparative Study; Christian Theology, including Theological Ethics; Philosophy and Psychology of Religion. To each approved student appropriate courses will be assigned, on occasion including courses offered by other Departments such as Education (Catholic Theology), Art History, Philosophy, History, Classics, Jewish Studies, or Islamic Studies. Graduate students in these Departments may be permitted or required to take courses currently offered in Religious Studies.

Adequate library facilities are available in the William and Henry Birks Building and elsewhere in the University for the courses listed, and for research.

All are half-courses unless otherwise noted.

A course may not be offered if fewer than six students register.

AREA A (BIBLICAL)

260-511B NEW TESTAMENT ETHICS. A study of selected areas of New Testament ethical teaching and its relevance for the contemporary Church.
Professor Wisse

260-520A AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Biblical Theology.
Staff

- **260-604A THE ROOTS OF EARLY JUDAISM.** An examination of Exilic and post-Exilic biblical materials (in English) that throw light on the cultural milieu and the historical experience out of which rabbinic Judaism arose.
Professor Runnalls

- **260-605B INTERPRETERS OF THE RELIGION AND FAITH OF ANCIENT ISRAEL.** A study of how the biblical tradition has been analyzed and evaluated by outstanding scholars.
Professor Culley

260-607B STUDIES IN THE BIBLICAL NARRATIVE TRADITIONS.
Professor Culley

- **260-611B PAULINE THEOLOGY.** A study of the nature, background, origins, development and expression of the theological ideas in the Pauline literature and the connection between these ideas and other early Christian thought.
Professor Wright

- **260-612A THE PASSION NARRATIVE IN THE FOUR GOSPELS.**
Staff

260-613A THE MINISTRY OF JESUS. A study of the Synoptic Presentation of the Aims. Teaching and Achievement of Jesus of Nazareth.
Professor Wright

- **260-614A THE GOSPEL OF JOHN.**
Staff

- **260-617B GNOSTICISM.** A study of the Gnostic writings from Nag Hammadi in light of the question of the relationship of Gnosticism to Judaism, the New Testament, Church History, and the History of Religion.
Professor Wisse

260-618B THE CHURCH IN THE NEW TESTAMENT. A study of the history, organization and worship of the Early Church on the basis of the New Testament Writings.
Professor Wisse

AREA B (HISTORICAL AND THEOLOGICAL)

260-530B AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Christian Theology.
Staff

260-531B AREA STUDIES. For S.T.M. studies. Tutorials and guided reading in the field of Christian Theology.
Staff

260-623B THE ECUMENICAL MOVEMENT. A study of the modern approaches to Christian

Reunion and Unity, world councils and the outstanding leaders. The significance of Ecumenism in the history of the Church in modern times will be considered.
Professor Furcha

260-625A CREEDS AND CONFESSIONS. An examination of selected credal and confessional statements from earliest extant confessional expressions to twentieth century creeds.
Professor Furcha

- **260-626B SECULAR DIMENSIONS OF THE REFORMATION.** The theory and practice of major reformers regarding the total involvement of a Christian in human affairs. Ecclesiastical reforms are examined in their relation to the political and economic realities of the day.
Professor Furcha

- **260-627A THE CHURCH IN CONFLICT.** (From the French Revolution to World War II). Externally churches found themselves challenged by ideologies such as rationalism, liberalism and Marxism; internally, churches had to rediscover ways of working together, despite theological differences, in promoting social change. Selected conflict situations will be examined through primary and secondary sources.
Professor Furcha

- **260-628A ANGLICANS AND NONCONFORMISTS IN NINETEENTH CENTURY ENGLAND.** A study of the changing religious pattern of 19th century England in terms of the relationship between the Established Church and Nonconformity as represented by the Free Churches and Roman Catholicism.
Staff

- **260-631B THE THEOLOGY OF THE CROSS.** The tradition Luther called THEOLOGIA CRUCIS as an appropriate theological response to the experience of the dominant culture of this continent.
Professor Hall

- **260-632B THE THOUGHT OF REINHOLD NIEBUHR.** Theological and ethical thought of Niebuhr in the light of its cultural, social and political context.
Professor Hall

- **260-633A THE THEOLOGY OF KARL BARTH.** Extensive reading and discussion of Part IV of the *Church Dogmatics* with special reference to Barth's Christology, doctrine of sin, ecclesiology and doctrine of Christian life.
Professor Klempa

260-634A MOVEMENTS IN CONTEMPORARY THEOLOGY. Readings and discussion of representative works in the theology of hope, liberation theology and in the theology of the "new evangelicals".
Professor Klempa

- **260-635B CHRISTOLOGY IN THE EARLY CHURCH.** This seminar will examine doctrines of Christology during the first five Christian centuries. Student papers will consider the contribution of leading Greek and Latin Fathers, and also the Creeds of Ecumenical Councils. Some sessions will look at the implications of this history for contemporary Christological discussions.
Professor Johnston

260-636B THEOLOGICAL METHOD. The seminar combines historical and systematic approaches to the questions associated with method in Christian theology. Particular attention will be given to the concerns of the apologetic and kerygmatic traditions and to contemporary discussions regarding contextuality in theological reflection.
Professor Hall

- **260-730A SEMINAR IN PATRISTIC THEOLOGY.**
Staff

- **260-731A,B SEMINAR IN MEDIAEVAL THEOLOGY.**
Staff

- **260-732A,B SEMINAR IN REFORMATION THEOLOGY.** For doctoral students.
Professors Furcha and McLelland.

AREA C (Religion and Culture)

260-540A AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Philosophy of Religion.
Staff

260-541B AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Theological Ethics.
Staff

260-542A AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Pastoral Psychology.
Staff

260-641A MODERN PHILOSOPHY OF RELIGION. A comparison of major types of philosophy of religion on the modern scene. Introductory lectures followed by student research on selected topics.
Professor McLelland

- **260-643B PROBLEMS IN PHILOSOPHY OF RELIGION.**
Professor McLelland

- **260-660B DIMENSIONS OF THE PERSON.** Studies in Erickson, Fromm, Horney and Jung.
Professor Peaston

- **260-661B HUMAN NATURE IN THEOLOGICAL AND PSYCHOLOGICAL PERSPECTIVE.** Theology (Niebuhr) and psychotherapy (Freud, Sullivan, Maslow) are studied as interpreters of man, his freedom, conflicts and renewal.
Professor Peaston

- **260-663A BEHAVIOUR CHANGE AND PERSONAL GROWTH.** A study in client-centered therapy;

behaviour therapy; transactional analysis; and existential psychotherapy.
Professor Peaston

260-667A IMAGES OF THE HUMAN. A study of some authors (Camus, Freud, Maslow, Niebuhr, Tillich, Tournier) and topics (personhood, love, anxiety, loneliness, violence) which point towards an integration of psychology and religion.
Professor Peaston

260-668A RELIGION AND THE PSYCHOLOGY OF JUNG. A study of the fundamentals of Analytical Psychology (e.g. dreams, archetypes, the Self, androgyny, evil, individuation) as seen in the context of Jung's life and work.
Professor Peaston

260-670A REPRESENTATIVE SOCIAL THOUGHT IN THE TWENTIETH CENTURY. Exposition and evaluation of the dominant expressions of social thought in the twentieth century.
Professor Boorman

260-671B CHRISTIAN SOCIAL RESPONSIBILITY: SOME MAJOR ISSUES. Major social and ethical problems of today will be identified and analyzed.
Professor Boorman

260-672A CONTEMPORARY VALUE SYSTEMS IN CHRISTIAN PERSPECTIVE.
Professor Boorman

260-673B INTERPRETERS OF CHRISTIAN VALUES IN THE MODERN WORLD. A study of the major concerns and dominant trends among Christian interpreters of the human situation and human values today. An attempt to discover the distinctive answers given to the quest for meaning by contemporary thinkers.
Professor Boorman

260-745A MEANING AND INTERPRETATION. An interdisciplinary seminar on hermeneutical problems.
Professors Culley and McLelland

AREA D (Comparative Study)

260-500B HONOURS METHODOLOGY (Not open to students who have taken 260-500D; prerequisite: 260-355A, and advanced undergraduate study in a major religious tradition at the 400 level). Research in an area of specialization and practical application of method in the preparation of a major paper.
Staff

260-550B AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Comparative Religion.
Staff

260-551A INDIAN LOGIC I. (Prerequisite: 260-257D or equivalent). The logic and epistemology of Nyaya - Vaisesika and Mimamsa using as basic texts Annambhatta's *Tarkasamgraha* and Laugaksibhaskara's *Arthasamgraha.*
Professor Young

260-552B ADVAITA VEDANTA. (Prerequisite: 260-551A). The relation of Nyaya-Vaisesika and Mimamsa to Kevaladvaita with concentration on Samkara's **Brahamasutrabhasya,** Padas 1 and 2.
Professor Young

- **260-553A RELIGIONS OF SOUTH INDIA I.** Issues discussed include definitions of Tamil identity, the relation of **akam** to **bhakti** poetry, the theology of the Alvars and Nayanmars, inter-religious and sectarian competition, the motif of pilgrimage, questions of caste and women.
Professor Young

- **260-554B RELIGIONS OF SOUTH INDIA II.** (Prerequisite: 260-553A). Includes analysis of the following: **sampradaya; ubhayavedanta;** comparison of Visistadvaita and Saiva Siddhanta with reference to selected themes that illustrate the Tamil contribution; the relationship of theology to the sociology of knowledge in Tamilnad.
Professor Young

260-651A BUDDHIST LOGIC I. (Prerequisite: two years of Sanskrit or Pali, or permission of the instructor). Vedic antecedents; Buddha's approach to epistemology and dialectics and their development in the **Kathavatthu** and **Milindapanha;** discussion of selected issues with references to Nagarjuna, Asanga, Vasubanddhu, and Dignaga.
Professor Rahula

- **260-653D VISISTADVAITA VEDANTA.** (Prerequisite: 260-357D, or permission of the instructor). Translation and analysis of **Yatindramatadipika** with reference to Tamil Vaisnava **bhakti** and issues of logic, epistemology, and metaphysics in the **darsanas.**
Professor Young

- **260-654A/B THOUGHT OF RAMANUJA.** (Prerequisite: 260-357D, or permission of the instructor). Translation and analysis of selections from Ramanuja's **Bhagavadgitabhasya** and **Brahamasutrabhasya.**
Professor Young

260-655B BUDDHIST LOGIC II. (Prerequisite: 260-651A). Translation and analysis of Dharmakirti's Nyayabindu with reference to the commentaries and contending schools.
Professor Rahula

- **260-750A/B COMPARISON OF HINDU AND BUDDHIST THOUGHT.** Advanced doctoral seminar. Themes to be determined each year.

- **260-751A/B TUTORIAL ON A SELECTED TOPIC.**
Staff

- **260-752D TUTORIAL ON A SELECTED TOPIC.**
Staff

SPECIAL STUDIES *

260-680A/680B/690D OLD TESTAMENT.

260-681A/681B/691D NEW TESTAMENT.

260-682A/682B/692D HISTORY OF CHRISTIANITY.

260-683A/683B/693D CHRISTIAN THEOLOGY.

260-684A/684B/694D PHILOSOPHY OF RELIGION.

260-685A/685B/695D ETHICAL PROBLEMS.

260-686A/686B/696D RELIGIOUS PSYCHOLOGY.

260-687A/687B/697D COMPARATIVE RELIGION.

* These are normally tutorial courses designed to meet the research needs of individual students at Master's or Doctoral level in the various disciplines. Students wishing to take them must obtain the permission of their advisers or supervisors (in the case of S.T.M. students, the chairman of the Faculty's Graduate Committee) as well as that of the instructor.

ELECTIVE COURSES IN OTHER DEPARTMENTS

The Institute of Islamic Studies offers a variety of courses in the History, Philosophy, Theology and languages of Islam that may be taken as part of the Graduate program in Comparative Study.

Scriptural languages such as Arabic, Greek, Hebrew, Pali, Sanskrit, may also be taken as part of this program. See the *Announcement of the Faculty of Religious Studies.*

With the consent of the Dean of Religious Studies and the instructor concerned, graduate students may choose related courses in any other Department of the University.

C16 DEPARTMENT OF RUSSIAN AND SLAVIC STUDIES

Samuel Bronfman Building
1001 Sherbrooke St. West
Montreal, PQ
Canada H3A 1G5

STAFF

Visiting Professor – V. GREBENSCHIKOV
Associate Professors – P.M. AUSTIN *(Chairman, on leave 1982-83)*; A.V. FODOR *(Acting Chairman);*
Assistant Professor – D. SAKAYAN

REQUIREMENTS

Original research work and the scholarly qualities of the thesis are the principal criteria for conferring a graduate degree in Russian. Two distinct fields of graduate work are recognized – Russian language and Russian literature respectively. It is expected that most students will enter the literary field with a minority showing research interest in philosophy and linguistics. However, both groups are appropriately provided for. Graduate work can also be carried out in language and literatures of Eastern Europe offered by the Department.

The general rules of the Faculty apply and are outlined in the *General Information and Faculty Regulations* Section of the Announcement. The minimum academic requirement is normally a high standing in Honours Russian. Further, the Department must be convinced that the candidate for admission has an aptitude for research work and will be able to make an original contribution to knowledge. The Department will usually require candidates to demonstrate a useful reading knowledge, for research purposes, of at least one other Slavic language. In addition a knowledge of French and, preferably, also German, is desirable. Any necessary preparation to fulfill these requirements will be offered within the Department or elsewhere at McGill. On a reciprocal basis certain graduate courses may be taken by arrangement at the Université de Montréal.

Requirements for the M.A. and Ph.D. Degrees

Details of the requirements for the M.A. and Ph.D. degrees may be obtained by applying directly to the Chairman of the Department.

COURSES FOR HIGHER DEGREES

141-601D M.A. COMPREHENSIVE EXAMINATION.
Staff

141-610D CHURCH SLAVONIC.
Staff

141-620D SECOND SLAVIC LANGUAGE AND CIVILIZATION.
Staff

141-630D EARLY HISTORY OF THE SLAVIC LANGUAGES.
Staff

141-640D THE BALTO-SLAVIC HYPOTHESIS.
Staff

141-650D HISTORY OF THE RUSSIAN LANGUAGE.
Staff

141-660D PRE-PETRINE RUSSIAN LITERATURE.
Staff

141-670D RUSSIAN LITERATURE OF THE 18TH CENTURY.
Staff

141-680D SEMINAR ON SPECIAL AUTHORS OF THE 19TH CENTURY.
Staff

141-681D SEMINAR ON RUSSIAN ROMANTICISM.
Professor Austin

141-690D DEVELOPMENT OF RUSSIAN LITERARY CRITICISM.
Professor Austin

141-700D Ph.D. PRELIMINARY EXAMINATION.
Professor Austin and Staff

141-701D Ph.D. COMPREHENSIVE EXAMINATION.
Professor Austin and Staff

141-710D SEMINAR ON THE Ph.D. COMPREHENSIVE EXAMINATION.
Professor Fodor and Staff

141-720D FIRST SEMINAR ON SPECIAL TOPICS.
Professor Fodor

141-721D SECOND SEMINAR ON SPECIAL TOPICS.
Professor Austin and Staff

141-722D THIRD SEMINAR ON SPECIAL TOPICS.
Staff

Ph.D. Language Tests

For Ph.D. candidates in other departments who require Russian for research and in satisfaction of the language requirement the following course is offered.

141-212D RUSSIAN READING COURSE. (3 hours, both terms). This course enables the student to read Russian and use the written language as a useful research tool.
Staff

141-790D EXAMINATION IN RUSSIAN AS A LANGUAGE REQUIREMENT FOR THE Ph.D. See "Ph.D. Language Tests" and consult the Department.

1982-83

FACULTY OF GRADUATE STUDIES AND RESEARCH

McGill University
Montreal

Section "D"

Medical and Allied Sciences

D1 — Department of Anatomy
D2 — Department of Biochemistry
D3 — Biomedical Engineering unit
D4 — Dentistry
D5 — Department of Epidemiology and Health
D6 — School of Human Communication Disorders
D7 — Medical Physics Unit
D8 — Department of Medicine
D9 — Department of Microbiology and Immunology
D10 — Department of Neurology and Neurosurgery
D11 — School of Nursing
D12 — Department of Obstetrics and Gynecology
D13 — Institute of Occupational Health and Safety
D14 — Department of Otolaryngology
D15 — Department of Pathology
D16 — Department of Pharmacology and Therapeutics
D17 — School of Physical and Occupational Therapy
D18 — Department of Physiology
D19 — Department of Psychiatry
D20 — Department of Diagnostic Radiology
D21 — Department of Surgery

The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees schedules and the revision or cancellation of particular courses.

Legal Deposit I 82

GRADUATE STUDIES AND RESEARCH IN THE MEDICAL SCIENCES

1. Departments wholly located in the Faculty of Medicine may accept as candidates for research degrees those who have received the M.D. or equivalent degree. Candidates who do not have the M.D. or equivalent degree may be accepted if a suitable schedule of course work is included as part of their graduate education program. Departments located partly in the Medical and partly in the Arts and Science Faculties may accept as candidates for basic science research degrees students who have an Honours or major Bachelor's degree or its equivalent.

2. A candidate for a research degree in a clinical department will be required to give evidence of above-average ability.

3. A candidate for the M.Sc. research degree in a clinical department will be recommended to the Graduate Faculty by the Dean of the Faculty of Medicine. This recommendation will be based on a review of proposals of candidates by the Graduate Study Committee of the appropriate clinical departments. Candidates must fulfil their program of course work and present a thesis acceptable to the Graduate Faculty.

4. Candidates for the Ph.D. research degree in a clinical department will be recommended to the Graduate Faculty by the Dean of the Faculty of Medicine. This recommendation will be based on a review of proposals of candidates by the Graduate Study Committee of the appropriate clinical departments. If, in addition to the M.D. degree, candidates possess the M.Sc. degree of this University or its equivalent, they will be required to spend two years in the Graduate Faculty in academic residence. They must fulfil their program of course work and present a thesis acceptable to the Graduate Faculty.

Inquiries concerning research in the clinical aspects of medicine may be in the first instance directed to:

Associate Dean for Graduate Studies and Research
The Faculty of Medicine
McGill University
3655 Drummond Street
Montréal, PQ, H3G 1Y6

Inquiries concerning research and higher degrees in Dentistry should be directed to: The Dean, Faculty of Dentistry, Strathcona Anatomy and Dentistry Building, McGill University, 3640 University Street, Montreal, PQ, H3A 2B2.

D1 DEPARTMENT OF ANATOMY

Strathcona Anatomy and Dentistry Building
3640 University Street
Montreal, PQ
Canada, H3A 2B2

STAFF

Professors - Y.W. CLERMONT *(Chairman);* P.K. LALA; C.P. LEBLOND; D.G. OSMOND; H. WARSHAWSKY
Associate Professors - G.C. BENNETT; J.J.M. BERGERON; J.R. BRAWER; E. DANIELS; B.M. KOPRIWA; M.F. LALLI; D. LAWRENCE; N.J. NADLER; C.E. SMITH; M. WEINSTOCK
Assistant Professors — A. BEAUDET; L. HERMO; S.C. MILLER; R.A. SIKSTROM

REQUIREMENTS

The Department offers programs leading to the degrees of Master of Science and Doctor of Philosophy in Anatomy. The aim of the program is to train individuals to be teachers and research workers in the Anatomical Sciences. In departmental research, contemporary facilities for specialized microscopy including light, fluorescence and electron microscopes, are used in conjunction with radioautographic, histochemical, biochemical and immunological techniques. Research problems concern the dynamics of tissues, cells and their macromolecular components with special emphasis on a variety of systems such as male reproductive, digestive, endocrine and central nervous systems, hard tissues, hemopoietic and immune systems, tumors and placenta.

For registration as a graduate student, the candidate must hold a B.Sc., D.D.S. or M.D. degree or any equivalent degree, as judged by the Faculty, and must have displayed general proficiency in biological studies. Letters of recommendation are required for all applicants.

For M.Sc. and Ph.D. degrees, the student must complete a series of courses, selected to suit individual requirements. In addition, Ph.D. candidates will write a comprehensive examination after the end of the first year. Ph.D. candidates are also required to pass reading examinations in one, or two, languages other than English, as prescribed by the Departmental Chairman upon

registration. For both degrees, the major emphasis is placed on the conduct of original research and the preparation of a thesis.

The Department offers the following:

504-431D SEMINARS IN ANATOMICAL SCIENCES. One advanced research seminar per week over the entire year given by the invited local and out-of-town speakers on their own current research activities.

504-533D EXPERIMENTAL MORPHOLOGY. A lecture and practical course on the use of experimental techniques applicable to morphological research. This course stresses methods currently used in the Department, such as radioisotopic tracers, radioautography, light and electron microscopy.

504-614D HUMAN ANATOMY AND EMBRYOLOGY. A complete dissection of the human body is integrated with a course of lectures, tutorials and audiovisual presentations. This course includes surface and radiological anatomy.

504-622B NEURO-ANATOMY. This is part of a joint course including Neuro-anatomy, Neuro-physiology and Neuro-chemistry.

504-663D HISTOLOGY. The study of the cytology and structure of tissues and organs.

504-701D Ph.D. COMPREHENSIVE EXAMINATION.

D2 DEPARTMENT OF BIOCHEMISTRY

McIntyre Medical Sciences Building
3655 Drummond Street
Montreal, PQ
Canada H3G 1Y6

STAFF

Professors – R.M. JOHNSTONE *(Chairman);* M.J. FRASER; A.F. GRAHAM; E.A. HOSEIN; S. SOLOMON; T.L. SOURKES; L.S. WOLFE

Emeritus Professor – K.A.C. ELLIOTT

Associate Professors – R. BLOSTEIN; P.E. BRAUN; R.E. MACKENZIE; E.A. MEIGHEN; S. MILLWARD; W. MUSHYNSKI; J. SHUSTER; A.R. WASSERMAN

Assistant Professors – G. SHORE; J. SILVIUS; N. SONENBERG

Associate Members – M.K. BIRMINGHAM *(Psychiatry);* L.F. CONGOTE *(Exp. Medicine);* C. DUPONT *(Pediatrics);* D. EDWARD *(Exp. Surgery);* W.C. GALLEY *(Chemistry);* L. GOODFRIEND *(Exp. Medicine);* R. HAND *(McGill Cancer Centre);* B.G. LIVETT *(Neurology)* H. PAPPIUS *(Exp. Neurochemistry);* J.F. PERDUE *(Lady Davis Institute);* P. ROUGHLEY *(Shriners' Hosp.);* C. SCRIVER *(Pediatrics)*

REQUIREMENTS

Students must submit with their application for admission the results of the Graduate Record Examination (aptitude test, and achievement test in Biology or Chemistry), three letters of recommendation and a brief resumé indicating their particular field of interest for graduate study.

Students who have satisfactorily completed either an Honours degree in Biochemistry or its equivalent, as well as students with an equivalent degree in related disciplines (e.g. chemistry, physics, physiology, microbiology and biology) are eligible for admission to a graduate program in Biochemistry. Students must also be accepted by an approved research director in the Department, prior to registration for a graduate degree. The M.Sc. degree usually involves a two-year program. Following completion of one year of study in the Department, suitable candidates may be allowed to proceed directly to the Ph.D. degree depending on the ability they display in research and course work.

The program of courses for each student is determined by the individual research director in consultation with the Chairman of the Department's Graduate Advisory Committee. Students who have not obtained a suitable Honours degree or its equivalent will be required to take a qualifying year or otherwise make up for deficiencies.

Candidates who have obtained the M.Sc. degree with satisfactory standing from this department or who have completed an acceptable M.Sc. program at another university enter the graduate program at the Ph.D. Level.

Research projects deal with the biochemistry of erythrocytes, liver, brain, muscle, chloroplasts, endocrine organs, nucleic acids, peptides, lipids, and transport phenomena. These projects are conducted in departmental laboratories, the Biochemistry Laboratories of the Allan Memorial Institute of Psychiatry, the Laboratory of Experimental Neurochemistry of the Montreal Neurological Institute, the University Clinics of the Montreal General and the Royal Victoria Hospitals and in certain other laboratories.

There is no second language requirement for Ph.D. students, excepts where individual research directors wish to make such a requirement for their own students. Students whose mother tongue is not English must be proficient in English and may be required to take a remedial English course if the research director deems this necessary.

COURSES FOR HIGHER DEGREES

Graduate Courses

507-503A IMMUNOCHEMISTRY. (Prerequisites: 507-311 and 312 and permission of the instructor). **Professor Shuster**

507-602A TOPICS IN MOLECULAR BIOLOGY. (Admission by permission of instructor only).
Professor Millward

507-623B IMMUNOCHEMISTRY (Admission by permission of instructor only).
Professor Shuster

Advanced Undergraduate Courses

507-311A CARBOHYDRATE AND LIPID METABOLISM. (Prerequisites: Biology 177-200A, 201B; Corequisites: Biology 177-301A, 177-302B).
Professor Braun and Staff

507-312B REGULATION OF NITROGEN METABOLISM. (Prerequisites: Biology 177-200A, 201B, Biochemistry 507-311A).
Professor Johnstone

507-404B BIOPHYSICAL CHEMISTRY. (Prerequisites: Chemistry 180-204A,B, 214B or equivalent; Chemistry 180-313A recommended. This course is also listed as Chemistry 180-404B).
Professors Meighen and Galley (Chemistry)

507-450A PROTEIN STRUCTURE AND FUNCTION. (Prerequisites: Biochemistry 507-311A, 312B and/or sufficient organic chemistry).
Professor Meighen

507-454A NUCLEIC ACIDS. (Prerequisites: Biochemistry 507-311A, 312B or permission of the instructor).
Professor Millward

507-455B NEUROCHEMISTRY. (Prerequisites: Biochemistry 507-311A, 312B).
Professors Sourkes, Wolfe and Staff

507-456B BIOCHEMISTRY OF MEMBRANES. (Prerequisites: Biochemistry 507-311A, 312B Chemistry 180-214B or equivalent, or by consent of the instructors).
Professors Braun and Blostein

SEMINARS

There are three series of seminars. The *Junior Seminar* consists of presentations by students of the background, experimental approach, and significance of their proposed research. This seminar is required of all M.Sc. students in the department who plan to proceed to the Ph.D. degree as well as by students entering at the Ph.D. level. The *Senior Seminar* consists of a presentation by all third or later year Ph.D. candidates on their research. *Departmental Seminars* consists of presentations by members of the staff and visiting scientists outlining their work with their collaborators. Graduate students are required to attend all the above seminars and certain informal seminars, and are encouraged to attend relevant scientific meetings.

D3 BIOMEDICAL ENGINEERING UNIT

McIntyre Medical Sciences Building
3655 Drummond Street
Montreal, PQ
Canada, H3G 1Y6

STAFF

Professors – H.K. CHANG *(Physiology)*
Associate Professors – W.R.J. FUNNELL *(Otolaryngology);* L. GLASS *(Physiology);* M.C. MACKEY *(Physiology);* J.S. OUTERBRIDGE *(Otolaryngology, Physiology) (Director)*
Assistant Professors – R.E. KEARNEY *(Physiology);* H.C. LEE *(Electrical Engineering);* J.L. NEAL *(Pediatrics)*
Lecturers – G. BERNSTEIN; L. HERCZ *(Pathology);* J.R. IVES *(Neurology and Neurosurgery);* R.S. POULSEN *(Pathology);* C.J. THOMPSON *(Neurology and Neurosurgery)*

The BioMedical Engineering Unit provides instruction and opportunities for interdisciplinary research in the application of engineering, mathematics and the physical sciences to problems in medicine and the life sciences. Courses are offered by graduate students in the life sciences and in engineering and the physical sciences. Graduate students working in the Unit are registered through appropriate departments in Medicine, Science and Engineering, and must fulfil the requirements for advanced degrees imposed by their respective departments. In addition all students are required, through course work and independent study, to achieve a degree of interdisciplinary competence appropriate to their area of specialization.

Excellent facilities for research are available in the Unit's laboratories and those of individual staff members elsewhere in the Medical Faculty and affiliated hospitals. A PDP-11/40 laboratory computer is available for experimental work in the Unit's laboratories. A larger, multi-user, PDP-11/70 computer system operated by the Unit is available to medical research users throughout the Faculty, and serves as host for a developing network of laboratory computers.

Current research interest of Unit staff include neuromuscular control (posture, eye movement), vestibular and auditory systems, mechano-receptors, neural communication, growth of dispersed metastasis, phase locking of biological oscillators, dynamic behaviour in differential

delay equations, cellular proliferation and differentiation, respiratory fluid mechanics and mass transfer, signal processing inotology, encephalography and electrocardiographly, systems identification, medical image processing, medical information systems, clinical laboratory automation, enzyme defects in cystic fibrosis.

Computer development work in the Unit, involving a staff of four professionals, is primarily concerned with providing support for medical research. Current areas of concern are: software and hardware for laboratory mini and micro computers; computer network development; interactive software for graphics, simulation, data acquisition and signal processing; medical information systems.

COURSES FOR HIGHER DEGREES

399-551B FLUID MECHANICAL ASPECTS OF RESPIRATORY PHYSIOLOGY. (3 hours lecture. Prerequisite: Permission of the instructor). Fundamentals of fluid mechanics and essentials of respiratory physiology will be reviewed as part I of the course. In part II, topics covered include: air flow pattern in the tracheobronchial tree; gas mixing in the lung; ventilation distribution; airway resistance; expiratory flow limitation; pulmonary blood flow; lung fluid balance.
Professor Chang

399-631B BIOMEDICAL ENGINEERING TECHNIQUES AND INSTRUMENTATION. (3 hours lecture). Selected topics in the application of system theory, signal analysis and instrumentation to medicine and biological research. Statistical and spectral analysis of continuous and point process signals, estimation, parameter identification, compartmental systems and tracer kinetics, biomedical transducers, electrodes and instrumentation. Presentation assumes adequate background in differential equations, transform methods, probability, basic electronics and computer programming.
Professor Lee

399-643B INTRODUCTION TO BIOMEDICAL ENGINEERING. (2 hours lecture, 1 hour laboratory). An introduction to aspects of biomedical engineering practice for life science students. Fundamentals and operation of commonly used instrumentation; transducers; electrical safety; instrumentation development; concepts and applications of computers; aspects of current biomedical engineering research.
Professors Funnell and Kearney

399-660B LABORATORY COMPUTER METHODS IN THE LIFE SCIENCES. (2 hour lecture, 1 hour laboratory). For life science graduate students. Laboratory computer architecture, peripherals, programming and operating systems, emphasizing the PDP-11 computer. Techniques for data acquisition, display and analysis, and for control of experiments. Students are required to do a computer project related to their own area of research. Some knowledge of FORTRAN is required.
Mr. Bernstein

399-662B COMPUTERS IN HOSPITALS. (2 hours lecture). For students in life sciences and health professions. Selected hospital computer applications discussed in the framework of overall hospital information flow. Laboratory data processing (Biochemistry, Hematology); processing of free text diagnostic statements (Pathology); diagnosis oriented image processing (C.T. scanners, nuclear medicine); patient index systems (registration, radiology); impact of epidemiology, hospital management and computer service distribution.
Mr. Hercz

Related courses offered in other departments include the following:

198-413A TOPICS IN THE PHYSICAL BASIS OF PHYSIOLOGY (Physics)

304-523B SPEECH COMMUNICATIONS (Elect. Eng.)

304-625B ARTIFICIAL INTELLIGENCE (Elect. Eng.)

305-560B BIOMECHANICS OF TISSUES (Mech. Eng.)

305-561B BIOMECHANICS OF MUSCULOSKELETAL SYSTEMS (Mech. Eng.)

308-425B TOPICS IN ARTIFICIAL INTELLIGENCE II (Comp. Sci.)

552-423A DYNAMICS, FUNCTION AND CONTROL OF PHYSIOLOGICAL SYSTEMS (Physiology)

552-517B PHYSIOLOGICAL SUPPORT SYSTEMS (Physiology)

82/83

D4 DENTISTRY

Strathcona Anatomy and Dentistry Building
3640 University Street
Montreal, PQ
Canada, H3A 2B2

STAFF

Professors – K.C. BENTLEY *(Director – Oral and Maxillofacial Surgery);* H. ROSEN *(Director – Prosthodontics).*
Associate Professors – N. DIBAI; R.F. HARVEY; D. KEPRON; J.J. McCARTHY; E.P. MILLAR; P.B. NOBLE; B. SEDLEZKY; J.W. STAMM.
Assistant Professors – R. EMERY; T. HEAD

/end

REQUIREMENTS

Diploma (Restorative Dentistry)

This program provides students with a year of valuable experience in selected phases of restorative dentistry but does not prepare them for the practice of a specialty. This 12 month program begins in September and consists of lectures, seminars, case presentations and the supervised treatment of clinical cases. Direct enquiries to Dr. H. Rosen, Faculty of Dentistry.

D5 DEPARTMENT OF EPIDEMIOLOGY AND HEALTH

3775 University Street
Montreal, PQ
Canada, H3A 2B4

STAFF

Professors – M.R. BECKLAKE; F.D.K. LIDDELL; A.D. McDONALD; J.C. McDONALD; R.O. OSEASOHN *(Chairman);* I.B. PLESS; W.O. SPITZER; J. STAMM

Associate Professors – M. ARHIRII; D.G. BATES; D.D. DAUPHINEE; L. DAVIGNON; F.R. FENTON; J. HANLEY; J. HOEY; S.H. SHAPIRO; N. STEINMETZ

Assistant Professors – F. AUBRY; J.-F. BOIVIN; D. DOELL; T. HUTCHINSON; M.S. KRAMER; A. LIPPMAN-HAND; M. PIPER; D.C. THOMAS; P. TOUSIGNANT

Auxiliary Professors: G.W. GIBBS; S. HERBERT; P.V. PELNAR; B. POLLACK; J. SIEMIATYCKI

Lecturers – M. BERLINGUET; A.M. CLARFIELD; H. GHEZZO; C.P. LARSON; M. OLIVIER

Associate Members – C. DIXON; J. LELLA; F. LORTIE-MONETTE

REQUIREMENTS

Admission

Diploma and M.Sc. candidates must hold a bachelor's degree or equivalent, and those for the Ph.D. must hold a Master's degree or equivalent. Due to limited enrolment, applications completed after the end of March cannot be considered for the next academic year.

REGISTRATION FOR "B" COURSES

Registration for "B" courses must take place before November 15. After November 15, special permission to register must generally be obtained from the course instructor.

Diploma

A course of study of one academic year. Students must complete (or be exempted from) six half courses. In addition, a paper is required.

M.Sc.

Students must complete (or be exempted from) 8 half courses. The student must thereafter submit a thesis on an approved subject of research in epidemiology, community health, environmental health, occupational health, health care evaluation or medical statistics.

Ph.D.

There are no course requirements. At the end of the first year of study, a comprehensive examination must be passed. The student must thereafter submit a thesis on an approved subject of research in epidemiology, community health, environmental health, occupational health, health care evaluation or medical statistics.

COURSE FOR DIPLOMA, M.Sc. AND Ph.D. †

513-604A,B GRADUATE SEMINARS. Scientific meetings and seminars of departmental interest.

513-605D COURSE FOR M.Sc. AND Ph.D. CANDIDATES. Prescribed course of study to meet a candidate's particular requirements.

513-606A EPIDEMIOLOGY. 1) Introduction to principles and methods of epidemiology; definition of epidemiology, measures of disease frequency, cohort studies, case-control studies, intervention studies, biases in epidemiology research, screening; 2) presentation of selected substantive topics.

513-607A PRINCIPLES OF INFERENTIAL STATISTICS IN MEDICINE. An introductory course covering the following topics: variability and the need for statistics; confidence and significance; decisions; some basic statistical techniques; recognition of problems where these techniques are and are not applicable; study design in relation to available tools of analysis; the elements of data processing.

513-608B ADVANCED EPIDEMIOLOGY. During this course a small number of selected topics within epidemiology or health care research are review-

ed by the students. A tutor is available for each topic and students are asked to review the present state of knowledge and suggest practical lines for further investigation. The course provides much time for personal study and requires participation in seminars and written presentation.

513-610A DESCRIPTIVE EPIDEMIOLOGY. Principles in measurement of population, man and his environment, health and health service utilization; life tables and survivorship; cohorts and competing risks; standardization; comparative health statistics with applications in epidemiology.

513-611B HEALTH CARE RESEARCH METHODS. This course is intended to provide an introduction to the basic approaches, philosophy and techniques involved in health care research, with particular emphasis on survey research as applied to program evaluation. The overall goal is to enhance the student's abilities and interest in methodologic issues involved in this area.

513-612B OCCUPATIONAL HEALTH. A course providing opportunity for study by seminars, guided reading, visits and assignments, to acquaint the student with principles of assessment of interactions between man and his occupational environment and with principles and organization of prevention of damage to health.

513-614B PUBLIC POLICY IN THE HEALTH FIELD. The discussion of a series of case studies will permit students to explore health policy issues using Quebec health services as the principle focus. Students will be required to evaluate policy and to consider its operational implications.

513-616A OCCUPATIONAL HYGIENE. The course will consist of lecture/seminars, field visits and practical work designed to provide students with the necessary skills to identify and measure hazardous agents in the work environment as well as knowledge of toxicology and environmental control.

513-617B OCCUPATIONAL DISEASES. A course of lectures, seminars, case demonstrations, field visits and guided reading to provide a basic knowledge of the diagnosis, treatment and medical prevention of occupational diseases and poisonings, and of assessment of disability for the purpose of workman's compensation.

513-621B DATA ANALYSIS IN THE HEALTH SCIENCES. The course consists of lectures, discussion and guided practical work covering: analysis of variance and covariance, experimental design, multiple regression and multivariate techniques for both continuous and discrete data. Both the BMDP and SPSS computer packages are exploited.

513-622B APPLICATIONS OF STATISTICS IN THE HEALTH SCIENCES. Discussion of the statistical issues in a series of medical research problems brought for consultation. Problem recognition and approaches to analysis will be emphasized rather than methodological techniques.

513-623B RESEARCH DESIGN IN THE HEALTH SCIENCES. Discussions, including student presentations, to provide guidance and experience in the formulation and constructive criticism of designs for research in the health sciences, including therapeutic and prophylactic trials cross-sectional studies, case-control, cohort studies and evaluative studies.

513-625A COMMUNICABLE DISEASES. The aim is to prepare students to deal with communicable disease problems as they exist in most North American communities. The following topics are included: 1) general principles such as interaction of host, agent and environment; and mode of transmission; 2) study of selected diseases classified according to mode of spread; 3) review of recent developments in certain major problem areas; 4) study of applications of vital statistics and behavioral science to infectious disease problems; 5) administrative problems.

513-626B ASSESSMENT OF RISK IN EPIDEMIOLOGY. Standard methods of analysis of disease risks in clinical trials, case-control studies and cohort studies. Survival distributions and maximum likelihood. Regression models for each type of design. Computer programs for risk analysis. Special topics in modelling, prediction, interpreting and using risk estimates in deciding public policy.

513-628B MEASUREMENTS IN CLINICAL EPIDEMIOLOGY. The course will examine problems of definition and measurement of variables used in clinical and epidemiologic research, and in health services evaluation. The process of quantification, and approaches to reliability and validation will be emphasized. Practical exercises will give students an opportunity to acquire skills in developing measurements in research.

513-677A,B,D SPECIAL TOPICS IN EPIDEMIOLOGY AND HEALTH. A course providing opportunity for detailed study through guided reading, visits, practicals, assignments, etc., of an elected and approved topic of epidemiologic importance. Students are only allowed to take a maximum of two different Special Topics courses for credit.

Note: Courses 606A and 607A or equivalent are prerequisites for all 'B' courses.

D6 SCHOOL OF HUMAN COMMUNICATION DISORDERS

Beatty Hall
1266 Pine Avenue West
Montreal, PQ
Canada, H3G 1A8

STAFF

Professors - D.G. DOEHRING *(Research Director);* D. LING *(Director of the Project for Hearing-Impaired Children)*
Associate Professors - K.K. CHARAN *(Director);* A. KATSARKAS; J.C. McNUTT
Assistant Professor - E.B. COLE
Lecturers - M. PATERSON; F. RUDMIN
Part-time teaching staff - Assistant Professors — N. CHAN; H. ILECKI; R. JIRSA; D. LECKIE; S. SCHWARTZ; R. SHENKER; A. SMITH
Sessional lecturers - M. BERGER; D. BONNYCASTLE; J. FISH; J. HARRISON; I. HOSHKO; A. LEMAY; M. MOON; R. SCHULMAN; R. SPRINGER

The School of Human Communication Disorders accepts selected applicants into two professional programs, one leading to an M.Sc., Applied degree in Human Communication Disorders (Audiology or Speech Pathology) and the other leading to an M.Sc., Applied degree in Auditory-Oral Rehabilitation and Education of Children with Hearing Impairment. The latter is offered in collaboration with the Department of Educational Psychology. Selected applicants are also accepted into research programs leading to an M.Sc. or Ph.D. degree. When submitting application, students should specify which of these four programs they wish to enter. *Because of limited enrolment, unless the completed applications including transcripts and letters of reference have been received by March 31, they may not be considered for the next academic year.*

PROFESSIONAL PROGRAMS

An application to a professional program should be preceded by a serious and informed decision regarding the program selected and the field of specialization. Prospective applicants are urged to contact a speech pathologist, an audiologist and a teacher of hearing-impaired children and discuss with them the relative merits, problems and potentials of their professions.

Both professional programs involve two academic years of full-time study and related practical work followed by a summer internship. No thesis is required. In order to prepare students to function as creative professionals, these programs emphasize the understanding of fundamental principles and their present or potential clinical applications rather than the teaching of specific diagnostic, therapy or educational techniques. Active participation in the learning process is encouraged throughout both programs.

M.Sc.A. Degree in Human Communication Disorders

When applying for this degree, students must indicate whether they wish to specialize in Audiology and Aural Rehabilitation or in Speech and Language Pathology. Applicants must have undergraduate degrees with a B average (3.0 on a 4.0 point scale) or better in areas relevant to their selected field of specialization. Specific prerequisites are six credits in statistics (preferably offered by a psychology department) and eighteen credits in psychology. Knowledge of physiology, phonetics, linguistics and other social sciences is desirable and for those wishing to specialize in Audiology, some psychology credits may be replaced by credits in mathematics, physics and electronics. *Applicants having undergraduate degrees in Audiology or Speech Pathology cannot be integrated into this program.*

Courses from the following list will be taken according to the area of specialization. Each course is subdivided in several sections which may be taught by different instructors.

401-610D BASIC SCIENCE OF HUMAN COMMUNICATION.

401-611D AUDIOLOGY AND AURAL REHABILITATION.

401-612D PHYSIOLOGY OF SPEECH AND HEARING.

401-613D SPEECH AND LANGUAGE PATHOLOGY.

401-620D ADVANCED LANGUAGE PATHOLOGY.

401-621D ADVANCED AUDIOLOGY.

401-622D ADVANCED SPEECH PATHOLOGY.

401-623D REHABILITATION OF THE AURALLY HANDICAPPED.

401-630D PRACTICUM.

401-640D RESEARCH METHODS.

401-641D INDEPENDENT PROJECT.

401-650A SEMINAR IN HUMAN COMMUNICATION DISORDERS.

401-651B SEMINAR IN HUMAN COMMUNICATION DISORDERS.

401-660D LECTURES AND RESEARCH ON SELECTED ADVANCED TOPICS.

M.Sc.A. Degree in Auditory-Oral Rehabilitation and Education of Children with Hearing-Impairment

Candidates must have an undergraduate degree with a least a B average and be qualified teachers. A course in statistics and nine credits in psychology or equivalent are required. Recommended courses include those relating to normal infant and child development, the teaching of normal and exceptional children, and the management of behavior disorders. Applicants should be mature individuals, capable of offering leadership. Priority will be given to suitable candidates who have native fluency in French. Practicum will be available in francophone settings. *Audiologists and speech pathologists wishing to work in the Province of Quebec will be examined on their proficiency in French by l'Office de la Langue française de la Province de Québec before being admitted to the professional corporation.*

Students will follow essentially the same core curriculum as students in speech pathology and audiology, but with intensive specialization in auditory-oral rehabilitation and education of hearing-impaired children.
The following courses are taken by all students. Each course is subdivided into several sections which may be taught by different instructors.

401-611D AUDIOLOGY AND AURAL REHABILITATION.

401-613D SPEECH AND LANGUAGE PATHOLOGY.

401-615D BASIC SCIENCES FOR AURAL REHABILITATION.

401-625D CHILD AUDIOLOGY.

401-626A,B INDEPENDENT STUDY PROJECT.

414-630D HISTORY, PHILOSOPHY, PSYCHOLOGY AND RESEARCH METHODS RELATING TO THE HEARING-IMPAIRED.

414-631D AUDITORY-ORAL COMMUNICATION FOR THE HEARING-IMPAIRED.

414-632D LANGUAGE ACQUISITION BY THE HEARING-IMPAIRED.

414-633A,B INTEGRATION OF HEARING-IMPAIRED CHILDREN INTO REGULAR SCHOOLS.

(Offered in conjunction with the Department of Educational Psychology and Sociology).

RESEARCH PROGRAMS

Selected candidates may be accepted for a program of studies leading to the M.Sc. and Ph.D. research degrees. Applicants should have prior professional training to the Master's level in human communication disorders or education of the hearing-impaired. The student will usually be required to complete the research degree before proceeding to the Ph.D. if a research thesis was not completed as part of the previous professional training. The majority of the student's time is devoted to research, with course work determined by individual needs. No professional courses are given at the Ph.D. level, but Ph.D. candidates must complete an advanced statistics course. An examination in a foreign language is not required. Applicants should indicate their main area of research interest.

D7 MEDICAL PHYSICS UNIT

Royal Victoria Hospital
687 Pine Avenue West
Montreal, P.Q.
Canada H3A 1A1

82/83

STAFF

Professor – M. COHEN *(Director)*

Associate Professor – E.B. PODGORSAK *(Radiation Oncology)*

Assistant Professors – G. DEAN *(Nuclear Medicine);* S. LEHNERT *(Radiobiology);* T.M. PETERS *(Neuroradiology)*

Lectures – M. PLA *(Radiation Oncology),* C. PLA *(Radiation Oncology).*

The Medical Physics Unit is a recently created Unit concerned with the application of physics in medicine, especially (but not exclusively) radiation medicine, i.e. radiation oncology, diagnostic radiology, nuclear medicine and ultrasound. The Unit is affiliated with the McGill Cancer Centre. Research interests include solid state dosimetry, acquisition and processing of patient data for radiotherapy treatment planning, quality control in diagnostic radiology and various aspects of medical imaging.

M.Sc.A. IN MEDICAL RADIATION PHYSICS

This two-year program provides a comprehensive introduction to both the academic and practical aspects of physics applied to radiation medicine. The program is conducted in co-operation with the Departments of Physics, Radiation Oncology and Diagnostic Radiology. The practical and laboratory sections of the program are conducted in various McGill hospitals and in the Foster Radiation Laboratory.

REQUIREMENTS

ADMISSION

Candidates must normally hold a B.Sc. degree with Honours or Major in Physics or Engineering, but graduates in the biological sciences will also be considered if they have an adequate physics and mathematical background. Students from the life sciences may be required to take an additional physics and/or math course in place of the compulsory physiology course taken by those holding a physics (or similar) degree.

REQUIREMENTS FOR THE M.Sc.A. DEGREE

The program comprises

- (i) courses in radiation physics, radiation dosimetry, medical electronics and instrumentation, the physics of radionuclides in medicine and of medical imaging, radiation hazards and protection and cellular and radiation biology (courses designed for this program).
- (ii) courses in physiology and computing given by other departments
- (iii) seminars in radiation oncology and diagnostic radiology
- (iv) specialized laboratory work
- (v) practical instruction in various hospital departments utilizing radiation
- (vi) An individual research project.

COURSES FOR HIGHER DEGREES

GRADUATE LEVEL COURSES

563-601A RADIATION PHYSICS. The production and properties of ionizing radiation and their interactions with matter; basic theoretical and experimental aspects of radiation dosimetry. (Course given in collaboration with the Foster Radiation Laboratory).

563-602B APPLIED DOSIMETRY. Theoretical and practical dosimetry of radiation sources, both external and internal with respect to the human body, as applied to radiotherapy, diagnostic radiology, nuclear medicine, radiobiology and radiation protection.

563-603D LABORATORY IN RADIATION PHYSICS AND DOSIMETRY. (Corequisites, 563-601A, 563-602B and 563-605B). Students undertake a program of measurements, using both standard hospital radiological sources and equipment and special equipment set up in teaching laboratories. (Course given in collaboration with the Foster Radiation Laboratory).

563-604A SEMINARS IN RADIATION MEDICINE FOR PHYSICISTS. This course has two sections: (1) Seminars given by specialists in the various branches of radiation medicine (therapeutic and diagnostic), in order to present these subjects to the physical scientist from the radiologist's point of view. (2) Seminars in radiation protection given by members of the Medical Physics Unit.

563-605B MEDICAL ELECTRONICS AND INSTRUMENTATION. This course as intended to provide physicists with basic knowledge relating to medical measurements and instrumentation. Emphasis is placed on radiological equipment and measurements but medical electronics applied to non-radiological fields is included in outline.

563-606A RADIONUCLIDES IN MEDICINE. This course covers the physics of radioactivity and of the applications of radionuclides in medicine and biology (except imaging which is covered in 563-607B). Emphasis is placed on unsealed radionuclides and radiopharmaceuticals in diagnosis and research.

563-607B PHYSICS OF MEDICAL IMAGING. This course provides a comprehensive review of the physics of medical imaging as applied to the various branches of radiology: diagnostic X-rays, radioisotopes, ultrasound, thermography, nuclear magnetic resonance. Emphasis is laid on the basic concepts of imaging and the assessment of image quality.

563-608D LABORATORY IN RADIOISOTOPES, IMAGING AND RADIATION BIOLOGY. (Corequisites 563-606A, 563-607B, 563-609A). Students undertake a program of measurements, using both standard hospital imaging and counting equipment and special equipment set up in teaching laboratories. The course includes laboratory work in radiobiology.

563-609A CELLULAR AND RADIATION BIOLOGY. This course provides the Medical Physicist with a basic knowledge of cellular biology and of the actions of radiation on cells and more complex organisms. Radiobiology applied to radiotherapy and to radiation protection is included.

D8 DEPARTMENT OF MEDICINE [Division of Experimental Medicine]

Montreal General Hospital
1650 Cedar Avenue
Montreal, PQ
Canada, H3G 1A4

STAFF

Professors - P. MACKLEM *(Chairman, Dept. of Medicine);* H.L. GOLDSMITH *(Director, Division of Experimental Medicine);* A. AGUAYO; M. BECKLAKE; R. BLOSTEIN; J. BURGESS; D.G. CAMERON; T. CHANG; B. COOPER; J.C. CRAWHALL; S.O. FREEDMAN; P. GOLD; C.A. GORESKY; R.D. GUTTMANN; H. GUYDA; R. HAND; M. KAYE; J. KESSLER; M. LEVY; E.E. McGARRY; M. McGREGOR; J. MILIC-EMILI; B.E.P. MURPHY; C.K. OSTERLAND; Y.C. PATEL; B. POSNER; H.G. ROBSON; C. SCRIVER; J. SEELY; J. SHUSTER; A. SNIDERMAN; S. SOLOMON; D. THOMSON; D. TONKS; R.D. WILKINSON

Associate Professors - G. BRAY; L.F. CONGOTE; D. GOLTZMAN; L. GOODFRIEND; N. KALANT; M. KATZ; P. KONGSHAVIN; B. LIVETT; O.A. MAMER; R.R. MARTIN; S. MULAY; A. PETERSON; P. PONKA; G. PRICE; E. SKAMENE; H. TANNENBAUM; G. TOLIS

Assistant Professors - H. BENNETT; A. FUKS; T. HAKIM; T. KARINO; L. PANASCI; W. POWELL; C. ROUSSOS; A. SULLIVAN

Associate Members, McGill - J. BRAWER; R.J. GERMINARIO; E.R. GORDON; W. LAPP; J. PERDUE; P. ROUGHLEY; G. SHYAMALA; M. van der REST; S.N. YOUNG

Associate Members Université de Montréal - A. BARBEAU; M. CHRETIEN; J. DAVIGNON; J. GENEST; P. HAMET; O. KUCHEL; Y. MARCEL; C. MORIN; S. PANDE; M. SAIRAM; P.W. SCHILLER

Associate Members, Institut Armand Frappier, Université du Québec J.-M. DUPUY; D. OTH; E. POTWOROWSKI; R. TURCOTTE

ADMISSION

Admission to the Department is restricted to students who wish to register for the Ph.D. degree. Candidates must hold a Major or Honours B.Sc. degree, or an M.D. degree.

In addition to the documentation currently required by the Faculty of Graduate Studies, a letter from the candidate's research director outlining the Ph.D. project is necessary.

REQUIREMENTS

Comprehensive Examination

All students must take the Comprehensive Oral Examination, listed as course 516-701D, usually at the beginning of the second year of the Ph.D. This examination will determine if the student's work is progressing satisfactorily and is of sufficiently high calibre to warrant continuation in the program. Students should also demonstrate a broad knowledge of their field of research and related areas of knowledge.

Course Work

A minimum of 3 full courses is required; the following courses are highly recommended: 516-604D (Recent Advances in Cellular Biology); 516-610B (Biochemical Methods in Medical Research).

After consultation with their research supervisor and the Director of the Division, students may choose their courses from those offered by Experimental Medicine, Physiology, Biochemistry as well as other graduate and advanced undergraduate courses in the medical and allied sciences. Where necessary, students may enroll for credit in courses offered in the physical and mathematical sciences.

COURSES FOR HIGHER DEGREES

516-502A ADVANCED ENDOCRINOLOGY — PART I.
Professor Mulay and Staff

516-503B ADVANCED ENDOCRINOLOGY — PART II.

516-504A BIOLOGY OF CANCER.
Professor Thomson and Staff

516-507D ADVANCED APPLIED RESPIRATORY PHYSIOLOGY. (Offered in conjunction with the Department of Physiology).
Professor Roussos

516-603B SEMINARS IN ENDOCRINOLOGY
Professor Solomon and Staff

516-604D RECENT ADVANCES IN CELLULAR BIOLOGY. (Offered in conjunction with the Université de Montréal; given Thursday 16.00 — 18.00 hrs. at Institut de Recherches Cliniques, 110 Pine West; more than half the lectures are in French with English abstracts supplied).
Professor Chrétien and Staff

516-605B ONCOGENIC VIRUSES.
Professor Hand

516-606B ADVANCED APPLIED CARDIOVASCULAR PHYSIOLOGY.
Professor Goldsmith and Staff

516-610B BIOCHEMICAL METHODS IN MEDICAL RESEARCH.
Professor Powell and Staff

516-611D SEMINARS IN ONCOLOGY
Professor Fuks

516-701D COMPREHENSIVE EXAMINATION

552-508A ADVANCED RENAL AND ELECTROLYTE PHYSIOLOGY. (Offered in conjunction with the Department of Physiology).
Professor Levy

552-513B CELLULAR IMMUNOLOGY. (Offered in conjunction with the Department of Physiology).
Professors Lapp and Kongshavn

552-515A PHYSIOLOGY OF BLOOD – PART I. (Offered in conjunction with the Dept. of Physiology).
Professors Frojmovic and Cooper

552-516B PHYSIOLOGY OF BLOOD – PART II. (Offered in conjunction with the Department of Physiology).
Professors Katz and Cooper

552-517A PHYSIOLOGICAL SUPPORT SYSTEMS. PART I. (Offered in conjunction with the Department of Physiology).
Professor Chang and Staff

552-518B PHYSIOLOGICAL SUPPORT SYSTEMS. PART II. (Offered in conjunction with the Department of Physiology).
Professor Chang and Staff

SCHEDULED GRADUATE SEMINARS

The Royal Victoria Hospital

(1 hour per week)

RESPIRATORY RESEARCH.
IMMUNOPATHOLOGY.
ENDOCRINOLOGY AND METABOLISM.
HAEMATOLOGY RESEARCH.
RENAL AND ELECTROLYTE SEMINAR.
TRANSPLANTATION CONFERENCE.
GASTROENTEROLOGY CONFERENCE.
DIABETES CONFERENCE.
CHEST-CARDIAC DISEASE CONFERENCE.
CLINICAL ENDOCRINOLOGY CONFERENCE.
STEROID BIOCHEMISTRY RESEARCH.
HAEMATOLOGY CLINICAL CONFERENCE.
ENDOCRINOLOGY AND METABOLISM RESEARCH CONFERENCE.
CLINICAL IMMUNOLOGY CONFERENCE.
ARTHRITIS CONFERENCE.
INTERNAL MEDICINE.
DERMATOLOGY RESEARCH.
UNIVERSITY CLINIC SEMINAR.
CARDIOLOGY RESEARCH.

The Montreal General Hospital

(1 hour per week, or in some cases alternate week)

GASTROENTEROLOGY CONFERENCE.
RESPIRATORY DISEASES.
DERMATOLOGY.
INTERNAL MEDICINE.
ALLERGY AND IMMUNOLOGY.
INFECTIOUS DISEASES.
COMBINED STAFF CONFERENCE.
HAEMATOLOGY.
ARTHRITIS.
METABOLIC DISEASES.
CARDIAC DISEASE.
NEUROLOGY – NEUROSURGERY.
UNIVERSITY MEDICAL CLINIC SEMINAR.

D9 DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

3775 University Street
Montreal, PQ
Canada, H3A 2B4

STAFF

Professors – I.W. DEVOE *(Chairman);* J. GORDON; H.G. ROBSON; W. YAPHE
Associate Professors – Z. ALI-KHAN; M.G. BAINES; E.C.S. CHAN; L. KAPICA; J. MEAKINS; J. MENDELSON; E. MILLS; R.A. MURGITA; G.K. RICHARDS; R. SIBOO; M. WAINBERG
Assistant Professors – N.H. ACHESON; F.S. ARCHIBALD; D. BRIEDIS; J.W. COULTON; A.F. DOSS; M.S. DUBOW; J.A. HASSELL; B.E. HOLBEIN; L. MARTINEZ; J. PORTNOY
Lecturers – M.F.Z. BLANC; B. CLECNER; E. KOLYVAS; D. PORTNOY; R. SAGINUR; T. SALO
Associate Members – N. CHRISTOU; R. LALONDE; C.K. OSTERLAND; A.R. POOLE; H. RODE

REQUIREMENTS

Candidates are required to hold a B.Sc. degree in biology, biochemistry or another related discipline; those with the M.D., D.D.S. or D.V.M. degrees are also eligible to apply.

Requirements for the M.Sc. Degree

The following requirements must be satisfied:
(1) Students must register for and satisfactorily complete the requirements of

courses 528-602, 528-703 and two of the following courses: 528-704A, 528-705B, 528-706A and 528-707B (see list below).

(2) Other courses may be required to strengthen the student's background.

(3) A satisfactory M.Sc. thesis must be presented.

- **Requirements for the M.Sc.A. Degree**

The principal aim is to provide specialized training in Applied Medical Microbiology and Immunology. Candidates must satisfy requirements (1) and (2) for the conventional M.Sc. degree. In addition, applied laboratory research projects must be pursued as a major part of the overall program. The results of each project form the basis of a formal report which is reviewed by the department staff.

Requirements for the Ph.D. Degree

Normally those working toward the Ph.D. degree are required to hold an M.Sc. degree in a biological science or biochemistry. However, highly qualified students enrolled in the departmental M.Sc. program may be permitted to change to the Ph.D. program provided they meet its standards. Candidates will be judged principally on their research ability and on the presentation of satisfactory thesis. Students must also register for and satisfactorily complete the requirements of courses 528-701D, 528-702, 528-703 and three of the following courses: 528-704A, 528-705B, 528-706A and 528-707B (see list below). Other courses may be required to strenthen the student's background.

Graduate Courses

528-602A,B,D GRADUATE SEMINARS — M.Sc. Students (presentation of one seminar topic per year and attendance at all graduate seminars).

528-603H PRACTICAL DIAGNOSTIC MICROBIOLOGY (offered to M.Sc.A. students only).

- **528-605D ADVANCED INDEPENDENT RESEARCH PROJECT IN APPLIED MICROBIOLOGY AND IMMUNOLOGY** (offered to M.Sc.A. students only).

528-701D COMPREHENSIVE EXAMINATION FOR Ph.D. CANDIDATES.

528-702A,B,D GRADUATE SEMINARS - Ph.D. students; presentation of one seminar topic per year and attendance at all graduate seminars.

528-703A,B,D CURRENT TOPICS IN MICROBIOLOGY AND IMMUNOLOGY - discussion groups with guest speakers.

528-704A - READING AND CONFERENCE - A course in which student presentations, taken from current literature, are concerned with various aspects of a central topic chosen for the term. Such presentations are designed to be informal and to generate student discussions. The central topic will change from term to term depending on the staff coordinator and the students.

528-705B - READING AND CONFERENCE - Description as for 528-704A.

528-706A — READING AND CONFERENCE - Description as for 528-704A.

528-707B - READING AND CONFERENCE - Description as for 528-704A.

D10 DEPARTMENT OF NEUROLOGY AND NEUROSURGERY

Montreal Neurological Institute
3801 University Street
Montreal, PQ
Canada, H3A 2B4

STAFF

Professors - A. AGUAYO; F. ANDERMANN; D. BAXTER *(Chairman);* G. BERTRAND; S. CARPENTER; R. ETHIER; W.H. FEINDEL *(Director, M.N.I.);* P. GLOOR; I. HELLER; G. KARPATI; D. LAWRENCE; F.L. McNAUGHTON; B. MILNER; H. PAPPIUS; T.B. RASMUSSEN; J.P. ROBB; A. SHERWIN; J. STRATFORD; G. WATTERS; L. WOLFE; L. YAMAMOTO

Associate Professors - E. ANDERMANN; M. AUBE; J. BLUNDELL; G. BRAY; J.B.R. COSGROVE; R. DYKES; M.H. FINLAYSON; R. FORD; B. GRAHAM; P. HOLLAND; T. KIRKHAM; I. LIBMAN; B.G. LIVETT; D. MELANSON; C. MELMED; K. METRAKOS; A. OLIVIER; Y. PATEL; A. PETERSON; L.F. QUESNEY; M. RASMINSKY; L. RENAUD; D. TROP; J. WOODS

Assistant Professors - M. ABOU-MADI; J. ARPIN; E. BASS; A. BEAUDET; S. BEKHOR; L. DEMERS-DESROSIERS; M. DIKSIC; I. DUNCAN; S. GAUTHIER; J. GOTMAN; D. GUITTON; J.R. IVES; B. JONES; M. JONES-GOTMAN; G. KOSTOPOULOS; J. MONTES; A. MORTON; N.M.K. NG YING KIN; S. PENA; T. PETERS; M. PETRIDES; P. RICHARDSON; Y. ROBITAILLE; H. ROSEN; B. ROSENBLATT; J. STEWART; G. TANNENBAUM; W.F.T. TATLOW; L. TAYLOR; D. THOMAS; C. THOMPSON; J.G. VILLEMURE; J. WELLS

Lecturers - J. BARNES; J. CARLTON; G. ELLEKER; G. FRANCIS; A. HAKIM; P. HERSCOVITCH; M. LECHTER; K. MEAGHER-VILLEMURE; N.M.K. NG YING KIN; L. PRESCOTT; J. ROBIN; K. SILVER; C. STRAUSS

REQUIREMENTS

Admission

Candidates for graduate degrees must first meet the general qualifications and requirements for admission to the Graduate Faculty. (See the General Information and Faculty Regulations Section.) Candidates must advise their prospective Research Director of their intent to enrol in a graduate study program leading to either an M.Sc. or a Ph.D. degree by May 15. The candidate's study program must be approved by 1) the director of the candidate's research and 2) the Committee of Graduate Studies of the Department of Neurology and Neurosurgery. Registration as a graduate student cannot take place without the approval of this Comittee.

The M.Sc. program is a two-year program. In exceptional cases, upon recommendation by the Committee of Graduate Studies of the Department of Neurology and Neurosurgery, this requirement may be reduced to a twelve month program for students who spend one full year on laboratory research.

The Ph.D. Program is a three-year program. For M.D.s it is not necessary to obtain an M.Sc. first.

COURSE REQUIREMENTS

a) NEUROSCIENCES SEMINAR (Course 531-602H) for two years with satisfactory examination at the end of each year. This seminar represents the "core" program of the graduate studies program of the Department of Neurology and Neurosurgery. The complete course extends over two years.

b) SELECTED BASIC SCIENCE COURSES from undergraduate or graduate programs in other departments, or special courses in subdepartments within the Department of Neurology and Neurosurgery. The courses will be selected at the beginning of the Student's Graduate Program after discussion with the candidate's Research Director and the Committee of Graduate Studies of the Department of Neurology and Neurosurgery. The courses will be selected to fill in or complement students' backgrounds in the particular specialty of their graduate studies. Satisfactory credit for these courses has to be obtained. The method whereby the candidates are to be given credit is left to the discretion of the course directors involved and of the Directors of the candidates' research, and will require some form of examination or an acceptable substitute.

c) SPECIALTY DISCUSSION GROUP AND SEMINARS. These seminars will be given informally in the various subdepartments and laboratories of the Department of Neurology and Neurosurgery. Recent developments and ideas will be reviewed with particular emphasis on critical discussion of current literature and experimental designs. No formal credit is required except for a reasonably regular record of attendance and active participation in seminar work.

d) PRESENTATION OF A THESIS. The final draft of the thesis has to be submitted to the candidate's Research Director at least 60 days before the deadline for submission of the final copy to the Faculty of Graduate Studies and Research.

GRADUATE COURSES

Neurosciences Seminar

531-602D This is a course of weekly seminars, given during the academic year, designed to present over a two year period a concise, up-to-date review of the basic neurological disciplines. Mondays, 4:30 — 6:00 p.m.
Professors Gloor, Wolfe, Feindel, Aguayo and other members of the Department of Neurology and Neurosurgery, and related McGill Departments.

Neurophysiology

531-610A Lectures, together with medical undergraduates in course 524-121B, Interdisciplinary Course in the Central Nervous System.

531-611A Seminars and group discussions in Neurophysiology.
Professoirs Gloor, Gotman, Quesney, Thompson, Ives, Guitton, Kostopoulos and Dykes

Neuroanatomy

531-621A Seminars and group discussions in neuroanatomy. By special arrangement.
Professors Lawrence, Jones and Beaudet

Clinical Conferences

531-630H Colloquium in clinical and basic aspects of the nervous system. Mondays, 9:00 a.m., weekly during the academic year.
Professors Feindel, Baxter and Staff, and Visiting Lecturers

531-631H Seizure and EEG conference – alternate Thursdays, 4:30 p.m.
Professors Gloor, Andermann, Quesney, Rasmussen, Olivier, Milner and Ethier

531-632H Clinical Neurology conference. Friday 9:00 a.m., weekly during the year.
Professor Baxter and Staff, and Visiting Lecturers

Neurochemistry

531-640H Seminars in Neurochemistry in addition to that provided in Course 531—602H. By special arrangement.
Professors Wolfe and Pappius

Neuropathology

531-650H Six or twelve months laboratory work in Neuropathology.

531-651H Conference in Neuropathology, alternate Thursdays, 4:30 – 5:30 p.m.

531-652H Slide session in Neuropathology. Tuesdays and Thursdays, 11:00 – 12:00 noon.
Professors Carpenter and Robitaille

Neuroradiology

531-660H Practical instruction in techniques and interpretation.

531-661A Lecture demonstration (3 months in the fall), Mondays 4:30 – 5:30 p.m.
Professor Ethier and Staff

Electroencephalography and Clinical Neurophysiology

531-670H Laboratory work in Electroencephalography (minimum, six months with active participation, seminars and clinical conferences).
Professors Gloor, Quesney, Gotman and Ives

Neuropsychology

531-680H Training and research methods for selected graduate students.
Professor Milner and Staff

D11 SCHOOL OF NURSING

Wilson Hall
3506 University Street
Montreal, PQ
Canada, H3A 2A7

STAFF

Professors — F.M. ALLEN; J.M. GILCHRIST *(Director)*
Associate Professors – F. MacKENZIE; K. ROWAT
Assistant Professors – H. EZER; L. GOTTLIEB; M.E. JEANS; J. MacDONALD; M. KRAVITZ; M. WARNER

MASTER OF SCIENCE (APPLIED) PROGRAM

General Information

The two-year program leading to the degree of Master of Science, (Applied) is designed to prepare clinicians and researchers for the expanding function of nursing in our rapidly developing health care services. A choice of options, Clinical Nursing Practice or Research or a combination of these, is provided in the second year of the program. These options are closely associated with the Research Unit in Nursing and Health Care which has been established in the School of Nursing. Our growing attention to the study of nursing and health care problems should contribute to the quality of care and the delivery of health services in this country. Research in the health care field by graduates of the program will eventually lead some to undertake further study at the doctoral level.

Option A – Clinical Nursing Practice

To meet expectations for an expanded role function and for clinical nursing expertise in all domains of health care, the Master's program provides for the study of nursing over a two-year period incorporating research and evaluation methods in the investigation of nursing problems. All areas are available for students to experience, study and explore. These include common health problems and illness situations among individuals and families in various settings in the community: Hospital, Home, Health Centre and School.

Option B – Research in Nursing and Health Care

The two-year program combines the study of nursing in the expanded role with opportunity to carry out a thorough investigation of a problem in nursing or health care evaluation. Emphasis is placed on the design of research and evaluation projects. All clinical facilities and types of problems are available to students for exploration.

Entrance Requirements

Nurses

Applicants for the M.Sc.A. degree must have completed a bachelor's degree with a superior record of academic achievement. Preparation in nursing comparable to the bachelor's programs offered at McGill and accomplishment and development as a nurse are required.

All nurses applicants are expected to have current registration in the province or country from

which they come. Nurses who are not licensed in Québec must obtain a special authorization for graduate nursing students from the Order of Nurses of Québec.

Non-nurses

Non-nurses holding a bachelor's degree comparable to a B.Sc. or B.A. program offered at McGill and who have potential for the study of nursing may be admitted to a Qualifying program. There are a number of specific minimum requirements at the bachelor's level for B.A. and B.Sc. applicants to the Qualifying Year (G.P.A. of 3.0 or high B standing).

APPLICATION FOR ADMISSION

Application forms and other information may be secured from the Director, School of Nursing, attention Master's Program Office. Classes are admitted in September. Except under unusual circumstances, the application procedure must be *completed* by July 1 previous.

ACADEMIC REGULATIONS

The General Rules Concerning Higher Degrees apply. (See Section 2 of the General Information and Faculty Regulations Announcement). A minimum of two years of study is required for students entering the Masters' program, the first year of which may be taken on a half-time basis, i.e. extended over two years. Students who do not have all the prerequisites required for entry may apply for a Qualifying year. Qualifying students must be full-time students.

The comprehensive examination, Nursing 573-601 and the Nursing Seminar 573-602, or Research Seminar 573-603 are taken on completion of all other course requirements. Graduates of B.A. and B.Sc. programs are expected to obtain their license to practise nursing (N.) following succesful completion of requirements for the M.Sc.A. degree.

COURSE OF STUDY

FIRST YEAR (Option A and Option B)

Nursing 573-611D, Seminar in Practice of Nursing.
Nursing 573-612A. Research Methods in Nursing.
Nursing 573-615B. Health Care Evaluation.
Psychology 204-204A. Psychological Statistics.
OR
Sociology 166-350A. ELementary Statistics in Sociology and Anthropology.
One and a half electives (nurse students)
One elective (non-nurse students)
AND
573-623A – Clinical Assessment and Therapeutics

SECOND YEAR

Option A – Clinical Nursing Practice

Nursing 573-711D, Study of Problems in the Practice of Nursing.
One Elective.
One of either:
Nursing 573-763A and 764B. Teaching of Nursing and Practicum.
OR
Nursing 573-772A and 773B. Development and Management of Nursing Services and Practicum.

Option B – Research in Nursing and Health Care

Nursing 573-712D. Research in Nursing and Health Care.
Statistics — an advanced course.
One of either:
Nursing 573-763A. Teaching of Nursing.
OR
Nursing 573-772A. Development and Management of Nursing Services.

Elective courses selected in consultation with the adviser, are available from Arts, Science, Education, Management and some, in the health care field, from the Department of Epidemiology.

ADDITIONAL REQUIREMENTS (to be completed toward the end of the program):

Nursing 573-601. Comprehensive Examination.
A comprehensive examination on the practice and study of nursing.
Nursing 573-602. Nursing Seminar – **Option A.**
Presentation and discussion of a significant problem in the practice of nursing to faculty and to concerned practitioners in the clinical field.
Nursing 573-603. Research Seminar – **Option B.**
Presentation and discussion of student's research or evaluation project to faculty and to concerned practitioners and researchers in the clinical field.

QUALIFYING PROGRAM (non-nurses entering with B.A. or B.Sc.)

Nursing 573-511D, Practice of Nursing – Part I.
Nursing 573-507B. History and Development of Nursing.
Nursing 573-512C. Practice of Nursing – Part II.

Two electives from the medical sciences, to be selected in consultation with adviser.

Students must complete all requirements for entrance and for the Qualifying Year prior to enrolling in the Master's Program proper.

For course descriptions, see School of Nursing Announcement Section 4.3.

D12 DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

82/83

Royal Victoria Hospital
687 Pine Avenue West
Montreal, PQ
Canada, H3A 1A1

STAFF

DIVISION OF REPRODUCTIVE BIOLOGY

Professor - K.B. RUF *(Administrative Director)*
Associate Professor - J.R. BRAWER; B. ROBAIRE
Assistant Professor - R. FAROOKHI
University Lecturer - J.F. NELSON

ADMISSION

The staff members of the Research Division offer training leading to the M.Sc. and Ph.D. degrees via their affiliation with McGill Basic Science Departments (Physiology, Anatomy, Pharmacology). Inquiries should be addressed to the Administrative Officer.

D13 INSTITUTE OF OCCUPATIONAL HEALTH AND SAFETY

Charles Meredith House
1130 Pine Avenue West
Montreal, PQ
H3A 1A3

STAFF

Professor - J. CORBETT McDONALD *(Director)*
Associate Professor - M.I. ARHIRII; G. THERIAULT
Assistant Professors — I.F. HUNG; B. PATHAK
Auxiliary Professors - G.W. GIBBS; P.V. PELNAR *(Institute of Occupational and Environmental Health)*; P.C. ROHAN *(INRS-Santé, U. du Québec)*; J. SIEMIATYCKI *(Institut Armand Frappier)*
Lecturer - P.R. JANES
Research and Professional Associates - M. DUBEAU; M. ROSS
Associate Members - M.R. BECKLAKE; D. DOELL; C.Y. HWANG: F.D.K. LIDDELL *(Epidemiology and Health)*; A.D. McDONALD *(Epidemiology and Health, IRSST)*; D. ECOBICHON *(Pharmacology and Therapeutics)*; N. ROWLANDS; D. TROTTER *(Mining and Metallurgical Engineering)*; R. MUNZ *(Chemical Engineering)*; C. STEINBERG *(Faculty of Management)*

Graduate Diploma Programs

The Institute offers a one year Graduate Diploma program in Occupational Hygiene designed to introduce the student to the principles of the discipline and to provide the specialized knowledge necessary for the recognition, evaluation and control of health hazards at the work place. Starting with the academic year 1982-83, a Graduate Diploma program in Occupational Health will be offered for training physicians and other health professionals necessary for occupational health services and related research.

ADMISSION

Candidate should have completed, with high academic standing a bachelor's degree, or equivalent, in a relevant discipline (such as: biology, chemistry, engineering, or physics for the diploma in Occupational Hygiene; medicine, nursing, psychology, etc., for the diploma in Occupational Health). They will be required to submit with their application letters of recommendation, and may be invited for an interview.

REQUIREMENTS

All students are required to successfully complete a minimum of 10 half-courses (i.e. 30 credit units). Each student is also expected to satisfactorily complete a short internship in a local industry or occupational health service.

Any student wishing to be exempted from a course may have to take an examination in that subject. A comprehensive examination will be held at the end of the course program.

GRADUATE COURSES

392-602A OCCUPATIONAL HEALTH PRACTICE. The course which includes lectures, discussions and practical sessions, analyze the functions and organization of occupational health programs and services.

392-603A OCCUPATIONAL EPIDEMIOLOGY AND STATISTICS. Lectures and practical sessions to provide students with basic knowledge of epidemiology and statistics as applied to occupational health.

392-604A MONITORING MAN AND HIS ENVIRONMENT. A course presenting through examples from a wide range of occupational settings, the basic concepts of measurement, instrumentation, sampling strategies, recording and analysis of data for the purpose of environmental and biological monitoring.

- **392-605B CONTROLLING HEALTH EFFECTS AT WORK.** A course designed to introduce the student to the various approaches (administrative,

medical, engineering...) in the prevention and control of factors affecting health at work. Examples are presented from various industries involving physical, chemical and biological hazards.

392-606D OCCUPATIONAL HEALTH AND HYGIENE SEMINARS. Seminar discussions on a variety of subjects related to the content of the Occupational Health and Hygiene programs involving faculty and guest speakers.

392-607B PARTICLES AND THEIR HEALTH EFFECTS. Lectures and practical sessions dealing with the generation and aerodynamic behaviour of particles, their respirability, the evaluation of physico-chemical characteristics and exposure levels, tissue response and health effects of dusts, mists and fumes.

392-608B CHEMICAL HAZARDS. The course will describe the health effects of the most common chemical substances encountered in work places, and the methods used for measurement and control, as well as the safe handling of toxic materials. The course will involve practical sessions.

392-609B NOISE AND VIBRATION. The course will introduce the student to the study of health effects, techniques of measurements and methods of control of industrial noise and vibration. Practical exercises will be carried out.

392-610B RADIATION. The objectives of the course are to introduce the student to the types $(\alpha,\beta,\gamma,\chi)$ quantities and units, dosimetry, control and protection against ionizing and non-ionizing radiation (e.g. microwaves) in industrial and other work places. The course will involve practical work.

392-611B LIGHTING IN INDUSTRY. This course is designed to provide an introduction to the Occupational Hygiene aspects of lighting in the work place, including specific applications in mining, effects on safety, morale and productivity, advantages and disadvantages of different methods of lighting. The course will involve practical exercises.

392-612B PRINCIPLES OF TOXICOLOGY. Lectures and practical sessions on selected topics, including acute, subacute and chronic toxicity assessment, pharmaco-kinetics and pharmacodynamics, mutagenicity, carcinogenicity and teratogenicity.

392-613B BIOLOGICAL HAZARDS. This course will acquaint the students with microbiological agents associated with diseases of various occupational groups, the physical and biological characteristics of microbial and biological agents, sampling and identification techniques, environmental factors influencing the viability and infectivity of microorganisms, health effects, preventive and control measures.

392-614B SPECIAL TOPICS IN OCCUPATIONAL HYGIENE. Selected readings and practical sessions to suit the needs of individual students.

- **392-615B INDUSTRIAL SAFETY.** The course covers the principles of industrial safety, causal factors and characteristics of industrial accidents, accident recording and information systems, the methods and processes of industrial accident prevention, application of system safety analysis to industrial accident prevention and case studies of industrial accident prevention programs.

- **392-618B PRINCIPLES OF INDUSTRIAL VENTILATION.** A course presenting the student with the basics of design and evaluation of ventilation, fume extraction and industrial air qualify control systems. Practical exercises in the design of extraction or filtration systems will be undertaken.

392-619D FIELD WORK. Field visits, practical work and personal studies to familiarize students with occupational health and hygiene practices in the community. Each student is required to maintain a 'daybook' for submission at the end of the course.

392-621B SURVEY DESIGN AND ANALYSIS. Seminar course in which each student is required to design, and outline methods of analysis, for a descriptive, analytic or evaluative epidemiological survey to solve a problem in occupational health. Each student proposal will be discussed in detail by class members and staff.

392-622B MEASUREMENT OF HEALTH, FUNCTION AND DISABILITY. Lectures and practical sessions on clinical, physiological and laboratory methods for the assessment of health and working capacity. The use of these procedures for surveys, preplacement, monitoring and compensation will be discussed.

513-616A OCCUPATIONAL HYGIENE. Lectures and seminars, field visits and practical work designed to provide students with the necessary skills to identify and measure hazardous agents in the work environment as well as knowledge of toxicology and environmental control.

513-617A OCCUPATIONAL DISEASES. Basic knowledge of the distributions and mechanisms of occupational diseases, poisonings and disability.

D14 DEPARTMENT OF OTOLARYNGOLOGY

Royal Victoria Hospital
687 Pine Avenue West
Montreal, PQ
Canada, H3A 1A1

STAFF

Professors – J.D. BAXTER *(Chairman);* D.G. DOEHRING; D. LING

Associate Professors – E. ATTIA *(Program Director);* M.J. BLACK; A. COHEN; K.K. CHARAN; A. KATSARKAS; J.C. McNUTT; M. MENDELSOHN; W.H. NOVICK; J.S. OUTERBRIDGE; M.D. SCHLOSS; R.S. SHAPIRO; G. SHIMO

Assistant Professors – H. CAPLAN; N. CHAN; E.B. COLE; N. FANOUS; A. GROSSMAN; H.J. ILECKI; R. LAFLEUR; D. LECKI; S. SCHWARTZ; R. SHENKER; A. SMITH

Lecturers – A. FINESILVER; S. FRENKIEL; I. FRIED; R.W. McMILLAN; M.M. PATERSON; F. RUMIN; G. SEJEAN

REQUIREMENTS FOR THE M.Sc. DEGREE

Students must hold an M.D. degree with appropriate prerequisites.

The major part of the student's time will be spent in research and a thesis covering this work will be the major requirement for the degree. In addition the student will be required to attend certain courses given in the Department and in cooperating departments.

GRADUATE COURSES

540-602D ADVANCED COURSE IN PHYSIOLOGY, HISTOPATHOLOGY AND CLINICAL OTOLARYNGOLOGY.

540-603D LECTURES IN BASIC SCIENCES OF OTOLARYNGOLOCY.

Each student will be required to take certain courses in cognate subjects, such as Neuroanatomy, Neurophysiology, Medical Statistics and Physiology Instrumentation. The courses to be taken will depend upon the candidate's background and the research problem being studied.

D15 DEPARTMENT OF PATHOLOGY

3775 University Street
Montréal, PQ
Canada, H3A 2B4

STAFF

Professors – R.P. BOLANDE; S. CARPENTER; W.P. DUGUID; I. HÜTTNER; D.S. KHAN; J.B. RICHARDSON *(Chairman);* G. RONA; H. SHELDON; G. TREMBLAY

Associate Professors – M.N. AHMED; S. BROWNSTEIN; J.P. deCHAPAREVIAN; A. FERENCZY; M.H. FINLAYSON; R.D.C. FORBES; D. HAEGERT; J. KNAACK; J.R.C. LACHANCE; J.O. LOUGH; D.R. MURPHY; T.A. SEEMAYER; N.S. WANG; B.I. WEIGENSBERG

Assistant Professors — J. ARSENEAU; B. ARTINIAN; P. AVERBACK; G. BERRY; M.F. CHEN; M. de CHAMPLAIN; L. DESORMEAU; R. FRASER; S. JOTHY; R. LATT; M. MANDAVIA; R.P. MICHEL; R. POULSEN; Y. ROBITAILLE; A. RONA; P. SCHOPFLOCHER; H. SROLOVITZ; S. TANGE; J. VILORIA; M. VEKEMANS; J.L. WEBB; E. ZORYCHTA

Lecturers – L. BEGIN; C. BIER; R.H. BUELL; J. EMOND; C.C. FERGUSON; L. HERCZ; B. MANASC; K. MEAGHER-VILLEMURE; L. OLIVA; C. POTHEL; L. ROCHON; B.M. WOLANSKY

REQUIREMENTS

Normally candidates for a graduate degree in Pathology should have received an M.D., D.V.M. or D.D.S. Students who have obtained a B.A. or B.Sc. or other degree may, however, be considered for postgraduate training. At the end of the first postgraduate year, candidates must demonstrate a satisfactory knowledge of general and special pathology, and of the methodology in their field of interest. Work published or accepted for publication during enrolment in the doctorate program is suitable for partial fulfilment of these requirements. Three years residence is normally required of a Ph.D. candidate. There is no language requirement for a doctorate in Pathology.

COURSES FOR HIGHER DEGREES

524-221J BIOLOGY OF DISEASE.
Professor Richardson

546-121J PATHOLOGY. This course is largely a self preparation program taught in seminars. It covers the principles of general pathology and their relationship to commonly encountered diseases.
Professor Kahn

546-300B PRINCIPLES OF DISEASE. This course is an introduction to the study of disease. It is concerned with changes in normal structure and function and their causes at the host, tissue and cellular level. It considers the concepts of health and diseases, and uses examples drawn from history, animal experiments and human experience in medicine. It is an upper level biological science course and Biology. 177-200A and 177-201B (or 177-201D) or Physiology 552-211D are minimum prerequisites. There are no laboratories.
Professor Sheldon

546-701D COMPREHENSIVE EXAMINATION FOR Ph.D. CANDIDATES.
Supervisor and Staff

Schedules Graduate Seminars (Pathology Institute)

The student may be expected to attend certain schedules Departmental Seminars.

546-610D AUTOPSY REVIEW CONFERENCE. (2 hours/week).

546-611D SURGICAL REVIEW CONFERENCE. (2 hours/week).
Professor Knaack

546-612D COMPLETED CASE CONFERENCE. (1 hour/week).
Professors Knaack and Sheldon

546-613D DEPARTMENTAL RESEARCH SEMINAR. (1 hour/week).
Professor Forbes

D16 DEPARTMENT OF PHARMACOLOGY AND THERAPEUTICS

McIntyre Medical Sciences Building
3655 Drummond Street
Montreal, PQ
Canada, H3G 1Y6

STAFF

Professors – B.G. BENFEY; B. COLLIER; D.J. ECOBICHON; J. LOWENTHAL; M. NICKERSON; R.I. OGLIVIE *(Chairman)*; J.B. RICHARDSON; A. TENENHOUSE; J.M. TRIFARO
Associate Professors – J. ARANDA; R. CAPEK; N.R. EADE; B. ESPLIN; G. KUNOS; P.J. McLEOD; R.E. RANGNO; B. ROBAIRE; B.I. SASYNIUK; D.R. VARMA
Assistant Professors – L. BAYNE; B. HALES; M. HAMRELL; H. KATZ; E. KOVACS; J. KREEFT; S. NATTEL; A. PADJEN; M. QUIK; B. ROBAIRE; T-Y TI; M. WARNER; E. ZORYCHTA
Lecturers – D.S.R. EAST
Associate Member – D. COUSINEAU

The department offers work leading to the M.Sc. and Ph.D. degrees for students who have completed the B.Sc., M.Sc., M.D. or an equivalent degree with high academic standing. Applicants may be required to take the Graduate Record Examination Aptitude Test and to have letters of recommendation. Except for certain students holding the M.D. degree, the M.Sc. in pharmacology is not recommended as a primary objective.

In addition to work in this department, students may be required to make up deficiencies in ancillary subjects such as biochemistry and physiology. Facilities are available for work in neuropharmacology, cardiovascular pharmacology, autonomic pharmacology, biochemical pharmacology, drug metabolism, toxicology and clinical pharmacology. Students may undertake studies in several of these areas before selecting one for their thesis work.

Inquiries relating to all aspects of graduate study should be directed to the Secretary, Graduate Committee, Department of Pharmacology and Therapeutics as early as possible in each academic year.

COURSES FOR HIGHER DEGREES

A basic course in Pharmacology is required for graduate students who have not previously taken an equivalent course. This is usually 549-461D (GENERAL PHARMACOLOGY) which includes consideration of the effects and mechanism of action of the more important groups of drugs.

The following courses are designed primarily for graduate students, but may be attended by others under special circumstances. These courses are given in a variable sequence depending on the interests and requirements of graduate students enrolled in the department.

549-702B BIOCHEMICAL PHARMACOLOGY. Interaction of natural and synthetic chemicals with subcellular or molecular entities in living systems.

549-703A NEUROPHARMACOLOGY. The basic actions of drugs affecting axonal conduction and synoptic transmission, with particular emphasis on the central nervous system.

549-704B DRUG DISTRIBUTION, METABOLISM AND EXCRETION. Mechanisms by which the body handles endogenous and foreign chemicals and the effects of these processes on the characteristics of drug action.

549-705B CARDIOVASCULAR REGULATION AND DRUG ACTION. Homeostatic regulation of cardiovascular function and its modification by drugs.

549-706A CHEMICAL MEDIATORS AND AUTONOMIC DRUGS. Interactions of drugs and chemical mediators to mimic, augment or inhibit responses to peripheral nerve activity.

549-707A MOLECULAR PHARMACOLOGY. Actions of drugs on specific tissue receptors; enzymes or other macromolecular species in living cells.

549-711A CLINICAL DRUG TRIAL DESIGN. Review of methods and design in assessing drug effects in man including assessment of pre-clinical pharmacology and toxicology.

549-712B DRUG TRIAL EVALUATION AND STATISTICS. Review of statistical and descriptive methods used to evaluate clinical trials of drugs in man.

549-713A APPLIED PHARMACOKINETICS. Review of principles and methods to describe the time course of drug disposition in man, correlation with drug effects and development of rational drug dose schedules.

549-714B DRUG DISPOSITION AND TOXICITY IN MAN. Review of principal pathways and mechanisms for the biotransformation and elimination of drugs in man including methods of study and consequences to medical therapy.

D17 SCHOOL OF PHYSICAL AND OCCUPATIONAL THERAPY

3654 Drummond Street
Montreal, PQ
Canada, H3G 1Y5

STAFF

Assistant Professors - C. CHAN *(Co-ordinator of Graduate Program);* S. DAUPHINÉE; L. GAUTHIER; M. JAMIESON; M.C. PIPER *(Director);* D. ST. PIERRE
Lecturer - P. WEISS
Associate Members — R.E. KEARNEY *(Biomedical Engineering Unit);* H. TANNENBAUM *(Medicine & Clin. Med.);* A.W. TAYLOR *(Université de Montréal, Physical Education)*

M.Sc. IN HEALTH SCIENCE (REHABILITATION) PROGRAM:

Admission Requirements:

1. A B.Sc. degree with special training in one of the Medical Rehabilitation disciplines or a related field with a high B or second class standing.
2. Successful completion of an accredited university course within the last five years.
3. Pre-requisites: introductory courses may be required in anatomy, physiology, psychology, sociology, statistics, neurophysiology and others, depending on the area of specialization.
4. Two years of general clinical experience is recommended.

APPLICATION

Application for admission to the Faculty of Graduate Studies and Research should be made directly to the Co-ordinator of Graduate Program, School of Physical and Occupational Therapy, 3654 Drummond Street, Montreal H3G 1Y5.

PROGRAM REQUIREMENTS

The program normally requires two full academic years to complete. Upon recommendation by the School of Physical and Occupational Therapy and subsequent approval by the Faculty of Graduate Studies and Research, this requirement may be reduced for exceptionally well-qualified students.

An equivalent of 60 credits is required by the Curriculum and is generally divided as follows:-

- Required courses (12-15 credits)
- Courses pertaining to area of specialization (9-12 credits)
- Master's thesis (36 credits)

REQUIRED COURSES

A graduate course in statistics. Either one of the following is recommended:

513-607A PRINCIPLES OF INFERENTIAL STATISTICS IN MEDICINE. Department of Epidemiology & Health.

OR

414-602D THE USES OF STATISTICS IN EDUCATIONAL PROCEDURES. Department of Educational Psychology and Sociology.
Professor Rapagna

581-610B RESEARCH METHODOLOGY. An advanced lecture and seminar course with laboratory demonstration. Philosophy of scientific inquiry, principles of research design, basic instrumentation and application of statistical techniques are discussed with special considerations to research studies in health care and rehabilitation. Note: Pre-requisites: 513-607A or 414-602D, and 582-401A.
Professors Piper and Chan

581-614B REHABILITATION DEVELOPMENT I. A weekly multidisciplinary seminar course designed to survey current research in rehabilitation.
Professor Dauphinée and Graduate Staff

581-616A REHABILITATION DEVELOPMENT II. A weekly seminar course by staff, invited speakers and students designed for critical review and in-depth discussion of selected topics in rehabilitation.
Professor Chan

MASTER'S THESIS. (equivalent to 6 full courses). The student carries out a research study in an approved subject area under the guidance of a supervising committee which consists of an internal Supervisor (from within the School) and one or two External Advisors (from outside the School).

Graduate Staff in collaboration with the Faculties of Medicine, Education, Management and Graduate Studies and Research.

Optional Courses

581-602D EDUCATIONAL METHODOLOGY. Process of learning, methods of communication and teaching strategies applied to students and clinical personnel in hospitals, rehabilitation centres and schools, as well as to non-classroom situations.
Professor Thomas-Edding

581-603A,B CURRICULUM DEVELOPMENT. A course emphasizing current thought in rehabilitation, curriculum development and factors underlying curriculum planning.
Professor Thomas-Edding

581-612B COMMUNITY HEALTH NEEDS. Analysis of social trends and problems influencing the present practice and future development of health care, delivery systems with particular emphasis on rehabilitation in the Province of Québec.
Professor Dauphinée

With the approval of the Program Co-ordinator, students may select graduate or advanced undergraduate courses offered by the Faculties of Graduate Studies and Research, Medicine, Education and Management.

D18 DEPARTMENT OF PHYSIOLOGY

McIntyre Medical Sciences Building
3655 Drummond Street
Montréal, PQ
Canada, H3G 1Y6

STAFF

Professors – R.I. BIRKS; H.K. CHANG; T.M.S. CHANG; B.A. COOPER; P. GOLD; K. KRNJEVIC *(Chairman)*; M. LEVY; F.C. MacINTOSH; G. MANDL; G. MELVILL JONES; J. MILIC-EMILI; C. POLOSA; K. RUF

Associate Professors – M.W. COHEN; R. DYKES; M.M. FROJMOVIC; L. GLASS; P. KONG-SHAVN; W.S. LAPP; M. MACKEY; P. NOBLE; J.S. OUTERBRIDGE; P. PONKA; P. SEKELJ; A. WECHSLER; R.L. WILLIAMS

Assistant Professors – A.S. CHAWLA; J. COMMISSIONG; E. COOPER; R. DOUGLAS; M. GLAVINOVIC; T. HAKIM; J. HENRY; R.E. KEARNEY; N. LAKE; J. MORTOLA; D. ROY; B. SEGAL; A. SHRIER; T. TRIPPENBACH; D. WATT; P. WELDON

Lecturers – E. CHIRITO; C. COLE; G. TOLIS

Associate Members — A. AGUAYO *(Medicine)*; C. CHAN *(Physical and Occupational Therapy)*; B. DUBROVSKY *(Psychiatry)*; R. FAROOKHI *(Obs. & Gyn.)*; S.O. FREEDMAN *(Medicine)*; R. GAGNON *(Medicine)*; H. GOLDSMITH *(Medicine)* C.A. GORESKY *(Medicine)*; A. GRASSINO *(Univ. of Montreal, Medicine)*; M. KATZ *(Medicine)*; G. KOSTOPOULOS *(Montreal Neurological Institute)*; P. MACKLEM *(Medicine)*; B. PEARSON MURPHY *(Medicine)*; B. POSNER *(Medicine)*; L. RENAUD *(Neurology)*; S. ROSSIGNOL *(Univ. of Montreal, Physiology)*; C. ROUSSOS *(Medicine)*; M.R. SAIRAM *(Inst. de Recherches Clin.)*; J.F. SEELY *(Medicine)*; A. SNIDERMAN *(Medicine)*

Auxiliary Professor – V. KLISSOURAS

Admission

a) The Physiology Department offers training leading to the M.Sc. and Ph.D. degrees. Admission to the Graduate Program is based on an evaluation by the Graduate Students' Admissions Committee, and upon being accepted by a research director. Prospective students are encouraged to contact research directors individually. A list of the members of the academic staff and their research interests is available in the office of the Administrative Assistant, McIntyre Medical Building, Room 1022.

b) **THE M.Sc. PROGRAM**

Candidates for the M.Sc. should hold a B.Sc. degree with Honours in Physiology, or should have completed some other appropriate undergraduate program. Students with an inadequate background may be required to take recommended courses during a Qualifying Year.

The first year of the M.Sc. program consists of the following:

1) Laboratory work.
2) Presentation of a seminar based on research performed during the first year.
3) Comprehensive examination in Physiology. This will consist of a written examination covering all aspects of Physiology.
4) Other course work, as recommended by the Graduate Admissions Committee and the research Supervisor.

The candidate's performance will be assessed by an Evaluation Committee and the Research Director on the basis of these criteria.

SUMMER TERM

The Department offers students the opportunity of completing the M.Sc. residency requirements during a summer term consisting of an approved period of research of at least 12 weeks under the guidance of the student's supervisor.

Students whose performance is satisfactory will submit a thesis on their research work to the Faculty of Graduate Studies and Research for the award of the M.Sc. degree.

c) **The Ph.D. PROGRAM**

For students intending to do a Ph.D., the usual procedure is to be admitted initially into the M.Sc. program.

1) If in the first year of the M.Sc. program the quality of performance in all four categories named in (b) above is sufficiently high, the Evaluation Committee in consultation with the research Supervisor may recommend waiving of the M.Sc. thesis requirement and permit the student to proceed directly to the Ph.D. program.
2) Students who have completed the M.Sc. degree in Physiology in the Department or those holding an equivalent M.Sc. degree MAY also be admitted to the Ph.D. program.
3) Students in the Ph.D. Program are required to:
   i) give a seminar on their research work at least once every two years during their training;
   ii) pass at the graduate level the Departmental Graduate Seminar Course in General Physiology; (552-690A; 552-691B);
   iii) fulfill other requirements, to be specified upon admission to the program, considered important for their field of study and/or their general knowledge of Physiology. Students who have not previously passed the Departmental comprehensive examination may be required to do so;
   iv) submit a thesis and defend it orally.

COURSES FOR HIGHER DEGREES

552-502B EXERCISE PHYSIOLOGY.
Professors Polosa and Roussos

552-508A ADVANCED RENAL PHYSIOLOGY. Offered in conjunction with the Department of Medicine, Division of Experimental Medicine. Admission by permission of the instructor.
Professor Levy

552-513B CELLULAR IMMUNOLOGY. Offered in conjunction with the Department of Medicine, Division of Experimental Medicine.
Professors Lapp, Kongshavn and Gold

552-515A PHYSIOLOGY OF BLOOD I. Offered in conjunction with the Department of Medicine, Division of Experimental Medicine.
Professors B. Cooper and M. Frojmovic

552-516B PHYSIOLOGY OF BLOOD II. Offered in conjunction with the Department of Medicine, Division of Experimental Medicine.
Professors M. Katz and P. Ponka

552-517A ARTIFICIAL INTERNAL ORGANS. Offered in conjunction with the Department of Medicine, Division of Experimental Medicine and the Artificial Cells and Organs Research Unit.
Professor T.M.S. Chang and Staff

552-518B ARTIFICIAL CELLS, IMMOBILIZED ENZYMES AND BIOMATERIALS. Offered in conjunction with the Department of Medicine, Division of Experimental Medicine and the Artificial Cells and Organs Research Unit.
Professor T.M.S. Chang and Staff

552-601D Comprehensive Examination for M.Sc. students.

552-631B SELECTED TOPICS IN APPLIED IMMUNOLOGY. Offered in those years when there is sufficient demand.
Professor Kongshavn

552-690A GRADUATE SEMINARS IN GENERAL PHYSIOLOGY I. For graduate students in Physiology. Prerequisite: 552-311D or equivalent. This is a course of weekly seminars, by staff and

students, given during the academic year and designed for discussion and critical analysis of topics in Physiology. Choice of topics will vary from year to year.
Professors Mackey and Glass

552-691B GRADUATE SEMINARS IN GENERAL PHYSIOLOGY II. For graduate students in Physiology. Prerequisite: 552-311D or equivalent. This is a course of weekly seminars, by staff and students, given during the academic year and designed for discussion and critical analysis of topics in Physiology. Choice of topics will vary from year to year.
Professors Mackey and Glass

552-701D Ph.D. COMPREHENSIVE EXAMINATION

516-502A ADVANCED ENDOCRINOLOGY. See Department of Medicine, Division of Experimental Medicine.

516-503B ADVANCED ENDOCRINOLOGY. See Department of Medicine, Division of Experimental Medicine.

516-507D ADVANCED APPLIED RESPIRATORY PHYSIOLOGY. See Department of Medicine, Division of Experimental Medicine.

516-606B ADVANCED APPLIED CARDIOVASCULAR PHYSIOLOGY. See Department of Medicine, Division of Experimental Medicine.

399-551B FLUID MECHANICAL ASPECTS OF RESPIRATORY PHYSIOLOGY. See Biomedical Engineering.

399-650A DYNAMICS AND CONTROL IN PHYSIOLOGICAL SYSTEMS. See Biomedical Engineering.

D19 DEPARTMENT OF PSYCHIATRY

1033 Pine Avenue West
Montreal, PQ
Canada, H3A 1A1

STAFF

Professors – M. DONGIER *(Chairman);* M.K. BIRMINGHAM; B.O. DUBROVSKY; F.R. ERVIN; F.R. FENTON; H.E. LEHMANN; H.B.M. MURPHY; J.C. NEGRETE; R.H. PRINCE; J.J. SIGAL; T.L. SOURKES; S.N. YOUNG

REQUIREMENTS FOR THE M.Sc. DEGREE

Admission is restricted to candidates who hold an M.D. degree with good standing from an approved institution, and who have had not less than three years postgraduate training in Psychiatry in an approved centre.

The degree usually requires two years, but, under special circumstances, may be accomplished in one, spent wholly in research. The thesis topic and research subject must be approved beforehand by a committee headed by the Chairman of the Department of Psychiatry, and by the Dean of the Faculty of Graduate Studies and Research. The problem studied may belong to a clinical field, but a rigorous investigative approach must be utilized.

Adequate library and laboratory facilities are available within the Department of Psychiatry's network of teaching hospital facilities.

Cognate Subjects

Each subject will be required to take certain courses in cognate subjects, such as Biochemistry, Endocrinology, Neurophysiology, Psychology, Sociology or Statistics. These will be determined upon the basis of the special field of Psychiatry in which the candidate's research work is being carried out.

D20 DEPARTMENT OF DIAGNOSTIC RADIOLOGY

Jewish General Hospital
3755 Cote St. Catherine Road,
Montreal, PQ
Canada H3T 1E2

STAFF

Chairman – Dr. M.J. PALAYEW

Application for admission as candidates for the M.Sc. degree will be considered from graduates in Medicine, Dentistry or Veterinary Medicine, whose interests are directly concerned with the application of radiation in investigation and diagnosis. The normal admission standards of the Faculty will apply.

Two years may be required to complete qualification for the degree in order to include adequate knowledge of the fundamental radiological sciences. Certain arrangements may be made with the Medical Physics Unit to develop the research candidate's program in the area of diagnosistic radiological imaging. It may be possible, upon successful completion of the M.Sc. degree with high standing, to be accepted to develop a fundamental research program in a basic science related to radiology in a Ph.D. Degree program in the University.

D21 8/2/83 DEPARTMENT OF SURGERY

Division of Surgical Research

Donner Building
740 Avenue Docteur Penfield
Montreal, PQ
Canada, H3A 1A4

STAFF

Professors – A.R.C. DOBELL; J. GORDON; L.D. MacLEAN *(Chairman);* D.S. MULDER
Associate Professors – D.M. WALDRON-EDWARD; F. GLORIEUX; E.J. HINCHEY; A.R. POOLE; N.M. SCHEINER; S.C. SKORYNA
Assistant Professors – A.M. DANIEL; E. DELVIN; A.G. FAZEKAS; C.A. LAURIN; A.H. McARDLE; W.M. MERSEREAU; Y. TANAKA; M. VAN DER REST

Research Laboratories	*Directors*
Donner Building	J. GORDON
Montreal General Hospital	E.J. HINCHEY
Royal Victoria Hospital	H. SHIZGAL
Montreal Children's Hospital	A.D. MacKENZIE

REQUIREMENTS

Residents in Surgery in the teaching hospitals are eligible to enter the graduate program. Other applicants outside the surgical training program, who possess an M.D. or B.Sc. degree or equivalent may be admitted by special arrangement. The minimum full-time residence for a Master's degree for those in the surgical training program is one calendar year for others it is two calendar years. The minimum full-time residence for a Ph.D. program is three calendar years for all candidates. All candidates registering for a degree must have a research director approved by the Chairman of the Department, or by his opposite in the other teaching hospitals.

The main research interests in the Department are at present, transplantation, experimental carcinogenesis, cardiovascular surgery, gastroenterology, shock, water and electrolyte metabolism, and the effects of thermal injury. In addition, several research projects are conducted in surgical specialties. In view of these varied interests, only one seminar course is made compulsory for all candidates; two others are recommended.

Additional courses are to be selected on the basis of each candidate's field of research, in consultation with an M.D. or a B.Sc. degree, this selection is made on the basis of an outline of the M.Sc. project, prepared by the Research Director, to be forwarded along with the application. The deadline for applications is July 15.

Please direct enquiries to Miss Brenda Bewick, Department of Surgery, Division of Surgical Research, Donner Building (392-4858).

COURSES RECOMMENDED

519-602D SURGICAL ANATOMY. 1 hour weekly and demonstrations in anatomy laboratory to undergraduate medical students or an equivalent course in another basic science department.

177-373A BIOMETRY. 2 hours lectures, 2 hours laboratory. *(See Faculty of Science Announcement under Biology).*

COMPULSORY COURSE

519-603D SEMINAR

THE ROYAL VICTORIA HOSPITAL
(1 hour per week)

CARDIOVASCULAR-THORACIC CONFERENCE.
ACCIDENT SURGERY SEMINAR.
GENERAL SURGERY SEMINAR.
NEOPLASTIC SEMINAR.
COMBINED MEDICAL-SURGICAL GASTRO INTESTINAL CONFERENCE.
SURGICAL LITERATURE SEMINAR (RECENT ADVANCES).
TRANSPLANTATION CONFERENCE.
ORTHOPAEDIC CONFERENCE.
PLASTIC SURGERY SEMINAR.
SURGICAL GRAND ROUNDS.

THE MONTREAL GENERAL HOSPITAL
(1 hour per week, or in some cases alternate week)

RESEARCH SEMINARS' UNIVERSITY SURGICAL CLINIC.
GASTROENTEROLOGY CONFERENCE. †
OPHTHALMOLOGY CONFERENCE.
CARDIOVASCULAR-THORACIC CONFERENCE.
GENITO-URINARY CONFERENCE.
NEUROSURGERY CONFERENCE.
TUMOUR BOARD CONFERENCE.
COMBINED MEDICAL-SURGICAL CONFERENCE.†
TRAUMA CONFERENCE.
COMBINED SURGICAL CONFERENCE.†
ORTHOPAEDIC CONFERENCE.
CARDIAC CONFERENCE.†
GENERAL SURGERY SEMINARS.

† *In conjunction with Experimental Medicine.*

1982-1983
FACULTY OF GRADUATE STUDIES AND RESEARCH

McGill University
Montreal

Section "E"

Physical Sciences and Engineering

E1 School of Architecture
E2 Biomedical Engineering Unit
E3 Department of Chemical Engineering
E4 Department of Chemistry
E5 Department of Civil Engineering and Applied Mechanics
E6 School of Computer Science
E7 Crystallography
E8 Department of Electrical Engineering
E9 Department of Geography
E10 Department of Geological Sciences
E11 Department of Mathematics
E12 Department of Mechanical Engineering
E13 Department of Meteorology
E14 Department of Mining and Metallurgical Engineering
E15 Centre for Northern Studies and Research
E16 Institute of Occupational Health and Safety
E17 Institute of Oceanography
E18 Department of Physics
E19 School of Urban Planning

The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

Legal Deposit I 82

E1 SCHOOL OF ARCHITECTURE

McConnell Engineering Building
3480 University Street
Montreal, PQ.
Canada H3A 2A7

STAFF

Professors - BRUCE ANDERSON, DEREK DRUMMOND *(Director);* NORBERT SCHOENAUER; RADOSLAV ZUK
Emeritus Professors - JOHN BLAND, STUART WILSON
Associate Professors - WITOLD RYBCZYNSKI; JOHN SCHREIBER; ADRIAN SHEPPARD; GENTILE TONDINO
Assistant Professors - VIKRAM BHATT; DAVID COVO; PIETER SIJPKES

REQUIREMENTS FOR THE M.Arch. DEGREE

The Master of Architecture degree is a post-professional degree and is offered in the areas of Architectural Design and Minimum Cost Housing. Students holding the McGill B.Arch. degree or equivalent professional qualification with a Cumulative Grade Point Average of at least 3.0 may apply for admission.
N.B. Information concerning duration of program, documents required of applicants, etc. may be obtained from the Secretary of the School of Architecture. The application deadline is April 15.

PROGRAMS

ARCHITECTURAL DESIGN

Students in Architectural Design are required to complete 30 credits of course work which must include Architectural Design I and II, Graduate Seminar I and II, Structure of Cities, Seminar on Architectural Theory in the 20th Century and additional courses to be approved by the thesis adviser. In addition they are required to submit a thesis approved by the Director of the School and by the Faculty.

MINIMUM COST HOUSING

Students in Minimum Cost Housing are required to complete 30 credits of course work which must include Minimum Cost Housing I and II, Graduate Seminar I and II, Low Impact Technology, Housing Theory and additional courses to be approved by the thesis adviser. In addition, they are required to submit a thesis approved by the Director of the School and by the Faculty.

COURSES

301-376B STRUCTURE OF CITIES. 2(2-2-2). Nature, pattern and life of modern cities. Urban networks, special areas, problems and prospects.
Professor Anderson

301-481A SEMINAR ON ARCHITECTURAL THEORY IN THE 20TH CENTURY. 2(2-0-4). Analysis and evaluation of significant 20th century projects with reference to contemporary architectural theories.
Professor Zuk

301-610A, 301-611B ARCHITECTURAL DESIGN I, II. 6(2-10-6). Exploration of design processes related to complex architectural projects in the urban context. Emphasis is placed on a methodological approach to architectural design synthesis.
Professors Anderson and Zuk

301-615A, 301-616B GRADUATE SEMINAR I, II. 3(2-0-7). Seminar based on students' research topics and related subjects, at which presentation of work in progress is made to staff and visiting critics.
Staff and Visitors

- **301-620A, 301-621B URBAN HOUSING I, II. 6(2-10-6).** The design of urban and suburban housing; medium density ground-related low and medium profile housing concepts; optimum living standards; collective and autonomous servicing.
Professor Schoenauer

301-625B HOUSING THEORY. 3(2-2-5). A review of environmental alternatives in housing; contemporary housing and the physical and sociological determinants that shape it; Canadian housing.
Professor Schoenauer

301-630A, 301-631B MINIMUM COST HOUSING I, II. 6(2-10-6). Settlement problems in poverty areas; design of components and systems for self-help; low cost energy and servicing systems; the impact of industrial technology on the construction process.
Professor Rybczynski

301-632A, 301-633B LOW IMPACT TECHNOLOGY IN HOUSING. 3(2-0-7). Resource bases for construction; waste materials and recycling; garbage housing; the energy implications of design; solar energy utilization.
Professor Rybczynski

- **301-644C SHELTER FIELD OPERATIONS.**

E2 BIOMEDICAL ENGINEERING UNIT

McIntyre Medical Building
3655 Drummond Street
Montreal, PQ
Canada H3G 1Y6

STAFF

Professors - H.K. CHANG *(Physiology)*
Associate Professors - W.R.J. FUNNELL *(Otolaryngology);* L. GLASS *(Physiology);* M.C. MACKEY *(Physiology);* J.S. OUTERBRIDGE *(Otolaryngology, Physiology), (Director)*
Assistant Professors - R.E. KEARNEY *(Physiology);* H.C. LEE *(Electrical Engineering);* J.L. NEAL *(Pediatrics)*
Lecturers - G. BERNSTEIN; L. HERCZ *(Pathology);* J.R. IVES *(Neurology & Neurosurgery);* R.S. POULSEN *(Pathology);* C.J. THOMPSON *(Neurology & Neurosurgery)*

The BioMedical Engineering Unit provides instruction and opportunities for interdisciplinary research in the application of engineering, mathematics and the physical sciences to problems in medicine and the life sciences. Courses are offered for graduate students in the life sciences and in engineering and the physical sciences. Graduate students working in the Unit are registered through appropriate departments in Medicine, Science and Engineering, and must fulfil the requirements for advanced degrees imposed by their respective departments. In addition all students are required, through course work and independent study, to achieve a degree of interdisciplinary competence appropriate to their area of specialization.

Excellent facilities for research are available in the Unit's laboratories and those of individual staff members elsewhere in the Medical Faculty and affiliated hospitals. A PDP-11/40 laboratory computer is available for experimental work in the Unit's laboratories. A larger, multi-user, PDP-11/70 computer system operated by the Unit is available to medical research users throughout the Faculty, and serves as host for a developing network of laboratory computers.

Current research interests of Unit staff include neuromuscular control (posture, eye movement), vestibular and auditory systems, mechanoreceptors, neural communication, growth of dispersed metastasis, phase locking of biological oscillators, dynamic behaviour in differential delay equations, cellular proliferation and differentiation, respiratory fluid mechanics and mass transfer, signal processing in otology, encephalography and electrocardiography, systems identification, medical image processing, medical information systems, clinical laboratory automation, enzyme defects in cystic fibrosis.

Computer development work in the Unit, involving a staff of four professionals, is primarily concerned with providing support for medical research. Current areas of concern are: software and hardware for laboratory mini and micro computers; computer network development; interactive software for graphics, simulation, data acquisition and signal processing; medical information systems.

COURSES FOR HIGHER DEGREES

399-551B FLUID MECHANICAL ASPECTS OF RESPIRATORY PHYSIOLOGY. (3 hours lecture). Prerequisite: Permission of the instructor). Fundamentals of fluid mechanics and essentials of respiratory physiology will be reviewed as part I of the course. In part II, topics covered include: air flow pattern in the tracheobronchial tree; gas mixing in the lung; ventilation distribution; airway resistance; expiratory flow limitation; pulmonary blood flow; lung fluid balance.
Professor Chang

399-631A BIOMEDICAL ENGINEERING TECHNIQUES AND INSTRUMENTATION. (3 hours lecture). Selected topics in the application of system theory, signal analysis and instrumentation to medicine and biological research. Statistical and spectral analysis of continuous and point process signals, estimation, parameter identification, compartmental systems and tracer kinetics, biomedical transducers, electrodes and instrumentation. Presentation assumes adequate background in differential equations, transform methods, probability, basic electronics and computer programming.
Professors Funnell and Lee

399-643B INTRODUCTION TO BIOMEDICAL ENGINEERING. (2 hours lecture, 1 hour laboratory). An introduction to aspects of biomedical engineering practice and research for life science students. Fundamentals and operation of commonly used instrumentation; transducers; electrical safety; instrumentation development; concepts and applications of computers; aspects of current biomedical engineering research.
Professors Funnell and Kearney

399-660B LABORATORY COMPUTER METHODS IN THE LIFE SCIENCES. (2 hours lecture, 1 hour laboratory). For life science graduate students. Laboratory computer architecture, peripherals, programming and operating systems, emphasizing the PDP-11 computer. Techniques for data acquisition, display and analysis, and for control of experiments. Students are required to do a computer project related to their own area of

research. Some knowledge of FORTRAN is required.
Mr. Bernstein

399-662B COMPUTERS IN HOSPITALS. (2 hours lecture). For students in life sciences and health professions. Selected hospital computer applications discussed in the framework of overall hospital information flow. Laboratory data processing (Biochemistry, Hematology); processing of free text diagnostic statements (Pathology); diagnosis oriented image processing (C.T. scanners, nuclear medicine); patient index systems (registration, radiology); impact on epidemiology, hospital management and computer service distribution.
Mr. Hercz

Related courses offered in other departments include the following:

198-413A TOPICS IN THE PHYSICAL BASIS OF PHYSIOLOGY (Physics)
304-523B SPEECH COMMUNICATIONS (Elect. Eng.)
304-625B ARTIFICIAL INTELLIGENCE (Elect. Eng.)
305-560B BIOMECHANICS OF TISSUES (Mech. Eng.
305-561B BIOMECHANICS OF MUSCULO-SKELETAL SYSTEMS (Mech. Eng.)
308-425B TOPICS IN ARTIFICIAL INTELLIGENCE II (Comp. Sci.)
552-423A DYNAMICS, FUNCTION AND CONTROL OF PHYSIOLOGICAL SYSTEMS (Physiol.)
552-517B PHYSIOLOGICAL SUPPORT SYSTEMS (Physiol.)

For full course descriptions refer to appropriate calendar.

E3 DEPARTMENT OF CHEMICAL ENGINEERING

McConnell Engineering Building
3480 University Street
Montreal, PQ
Canada H3A 2A7

STAFF

Professors - J.M. DEALY; W.J.M. DOUGLAS *(Chairman);* M.R. KAMAL; M.E. WEBER
Associate Professors - J.M. CHARRIER; O.M. FULLER; A.S. MUJUMDAR; I. PATTERSON; J.H. VERA; B. VOLESKY
Assistant Professor - R.J. MUNZ; R.J. NEUFELD
NSERC Research Fellow - D.G. COOPER
Auxiliary Professors - M.M. AVEDESIAN; R. CARR; N.E. COOKE; R.H. CROTOGINO; E. DENMAN; P.A. DOUGALL; D.S. GARAWAL; D.C. LAMOND; D. McKEAGEN; J.A. MIKHLIN; F. PEACH; N.P. PETERS; A. RUDZINSKI
Senior Research Associate - W.H. GAUVIN
Research Associate - N. BARUCHA
Associate Members - H.K. CHANG *(Biomedical Engineering);* H.L. GOLDSMITH *(Experimental Medicine)*

ADMISSION

Advanced courses and laboratory facilities are available for graduate study leading to the M.Eng. and Ph.D. degrees in Chemical Engineering. Before making formal application for admission to the Dean, applicants should write to the Chairman of the Admissions Committee of the Department, from whom additional information on Departmental research and on financial support is available. Applications for September admission are normally received in February and, in most cases, decisions are made on admissions in April.

REQUIREMENTS

M.Eng. Degree

A student may satisfy the requirements for the degree by completing 45 credits with one of the following options:

A) A minimum of 21 credits in courses, of which at least 18 credits are graduate chemical engineering courses, including a 6-credit research project leading to a research proposal. Completion of a research project and submission of a thesis.
B) A minimum of seven graduate chemical engineering courses, totaling at least 24 credits, including a 6-credit design or research project leading to a project report. At least three approved courses outside the Department of Chemical Engineering, selected in one area to constitute a "minor". The balance of the requirements may be completed as follows: graduate courses from engineering, physical sciences or management; Project 302-696 (6 credits); approved undergraduate courses (maximum 6 credits).

At least 12 months of full-time study are required for this degree, while the average time taken is about 16 months.

Ph.D. Degree

Candidates with a bachelor's degree in chemical engineering normally register for the M.Eng. degree in the first instance.

Candidates with an acceptable master's degree or equivalent from another university will normally proceed directly to the Ph.D degree. The course work undertaken by a Ph.D. candidate will be decided in the light of the student's academic

qualifications, research requirements and interests.

Minimum time requirement is two years beyond the M.Eng. (or equivalent) degree.

General

Academic activities for graduate students are coordinated by the Graduate Studies Advisory Committee (GSAC), composed of two staff members appointed by the Department Chairman and two graduate students elected by the students. This committee provides a forum for all matters involving graduate student/staff interactions.

There is no foreign language requirement for either degree. All students must demonstrate proficiency in digital computer programming and give one or more research colloquia.

RESEARCH

Research may be undertaken in many branches of Chemical Engineering and related fields. Current research projects are in the following areas: heat transfer; mass transfer; coupled transport processes; thermodynamic and transport properties; chemical reaction engineering; plasma reactor studies; process control; biochemical and biomedical engineering; polymer engineering and rheology.

The Department has two professionally-staffed workshops, one specializing in mechanical construction, the other in electronics. In addition, a student shop and a dark-room are available. Among the special-purpose laboratories are two constant-temperature rooms.

Specialized equipment in the Department includes: turbulence measurement and analysis equipment, a laser doppler anemometer system, d.c. arc and r.f. induction plasma generators and reactors, thermal diffusivity apparatus, differential scanning calorimeter, thermogravimetric analyser, Instron capillary rheometer, Instron mechanical tester, Rheometrics Mechanical Spectrometer, injection molding machine, extruder, high speed cine camera, photo-optical data analyser, particle counter, continuous dilution calorimeter and total pressure apparatus for thermodynamic measurements, fermenters with automatic control modules, Total Organic Carbon Analyzer, sterilizer-autoclave. The Department has a complete range of analytical equipment including UV, IR and atomic absorption spectrometers and several gas chromatographs.

Data collection and experimental control equipment include a maxi-, a mini-, and several micro-computers as well as an analog computer.

COURSES FOR HIGHER DEGREES

- **302-551B TECHNO-ECONOMIC ASPECTS OF THE PETROCHEMICAL INDUSTRY. 3(2-0-7).** The basic raw materials for chemical production (natural gas, oil, coal) and the energy-refinery-petrochemicals interface; techno-economic study of the major products of the petrochemical industry; feedstocks, processes, technical and economic requirements, markets, and the impact of new technologies.
  Professor Kamal

- **302-571B PROCESS DYNAMICS AND CONTROL. 3(2-0-7).**

302-594B FOOD AND FERMENTATION ENGINEERING. 3(2-0-7). Engineering aspects of biochemical and microbial processes, selected unit operations of food processing. Agitation and aeration, related mass transfer, design and scale-up of fermentation equipment. Enzyme technology, sterilization techniques, separation processes. Contemporary food and fermentation technology. Instrumentation.
Professor Volesky

302-611A HEAT, MASS AND MOMENTUM TRANSPORT. 3(2-0-7). Unified treatment of the transport of mass, momentum and energy.
Professor Mujumdar

302-621B THERMODYNAMICS. 3(2-0-7). Review of thermodynamics principles. Foundations of thermodynamics with application of its methodology in the field of multicomponent, multiphase, multireaction systems. Detailed study of equilibrium and stability of thermodynamic systems.
Professor Vera

302-631B FOUNDATIONS OF FLUID MECHANICS. 4(3-0-9). Rigorous derivation of equations of motion; inviscid flow theory; the Navier-Stokes equations; boundary layer theory; hydrodynamic stability; turbulent flow, separated flows and drag on submerged bodies.
Professor Weber

302-641A CHEMICAL REACTION ENGINEERING. 3(2-0-7). Interpretation of chemical reaction data, especially for heterogeneous systems. Residence time, complete segregation, maximum mixedness, other advanced concepts. Reactor design.

- **302-652A,B DRYING: PRINCIPLES AND PRACTICE. 3(2-0-7).** Fundamentals of drying. Psychrometry; absorption; transport phenomena in porous media; heat transfer to particles, beds and surfaces; evaporation from drops and surfaces; simultaneous heat and mass transfer; drying

characteristics for batch and continuous drying. Industrial drying: applications to such areas as drying of paper, pharmaceuticals, food products, spray drying, freeze drying, fluidized bed drying. Design project.
Professor Mujumdar

302-653C ADVANCED PROCESS DESIGN. 3(2-0-7). Advanced techniques and concepts in the design of chemical processing plant and equipment.
Dr. Cooke

302-654C ADVANCED SEPARATION PROCESSES. 3(2-0-7). Generation of separation schemes; equilibrium stages, real stages and continous contacting models. Solution of the model equations on the computer and ensuring convergence. Examples chosen from among evaporation, distillation, absorption, adsorption and extraction. Fortran programming required.
Professors Weber and Vera

302-661A MATHEMATICAL METHODS IN CHEMICAL ENGINEERING. 3(2-0-7).

302-662A COMPUTATIONAL METHODS IN CHEMICAL ENGINEERING. 3(2-0-7).

302-681A POLYMER CHEMICAL ENGINEERING. 3(2-0-7). Application of chemical engineering fundamentals to the preparation and processing of polymers. Classification and characterization of polymers, reaction media and kinetics of polimerization, reactor design, viscoelasticity and rheology, processing techniques, extrusion, molding, composite formation, adhesion. Given in alternate years.
Professor Kamal

302-682C ENGINEERING PROPERTIES OF POLYMERIC MATERIALS. 3(2-0-7). Mechanical and transport properties of non-crystallizing and crystallizing thermoplastics, rigid thermosets, fibers, films, elastometers and composites with particle and fiber reinforcement. Elasticity, viscoelasticity, ultimate properties, diffusion of liquids and gases, thermal and electrical properties.
Professor Charrier

302-684B POLYMER PROCESSING. 3(2-0-7). Survey of engineering properties of polymers and processing operations, degradation of polymers, extrusion, injection molding, fiber spinning, film blowing, blow molding, thermoforming, miscellaneous other processes. Lectures, plant visits, problem assignments. Given in alternate years.
Professors Charrier, Dealy and Kamal

302-691D SELECTED TOPICS IN CHEMICAL ENGINEERING (1)
Staff

302-692D SELECTED TOPICS IN CHEMICAL ENGINEERING (2)
Staff

302-693D SELECTED TOPICS IN CHEMICAL ENGINEERING (3)
Staff

302-694D SELECTED TOPICS IN CHEMICAL ENGINEERING (4)
Staff

302-695A,B,C PROJECT IN CHEMICAL ENGINEERING. (6). Independent work under the general direction of a full-time staff member of the Chemical Engineering Department, on a problem of industrially-oriented design or research. The work must lead to a comprehensive project report.
Staff

302-696A,B,C EXTENDED PROJECT. (6). Extended independent work on a problem of industrially-oriented design or research, leading to a comprehensive project report.
Staff

- **302-712B HEAT TRANSFER. 3(2-0-7).** Advanced treatment of heat transfer in convection, boiling and in particulate systems. Application of numerical methods and correlation of data.
Professor Weber

- **302-713B MASS TRANSFER. 3(2-0-7).** Study of diffusive and convective mass transfer across interfaces. Turbulent transport and the transport of ions. Film and penetration theories and methods of predicting mass transfer rates for bubbles, drops and plane surfaces.
Professor Weber

- **302-732B RHEOLOGY OF LIQUIDS. 3(2-0-7).** Rational mechanics, formulation of rheological models, purely viscous fluids, linear and nonlinear viscoelasticity, viscometric flows, extensional flows, experimental methods; laboratory demonstrations.
Professor Dealy

- **302-742A INTRODUCTION TO CATALYTIC PROCESSES. 3(2-0-7).** Physical structures of solid catalysts, effects of structure on selectivity and activity, catalyst life and regeneration, standard methods of catalyst preparation, special preparation methods, properties of catalysts for homogeneous reactions, examples of solid catalysis in the chemical industry.
Professor Fuller

E4 DEPARTMENT OF CHEMISTRY

Otto Maass Chemistry Building
801 Sherbrooke Street West
Montreal, PQ
Canada H3A 2K6

STAFF

Professors - B. BELLEAU; I.S. BUTLER; T.H. CHAN; J.T. EDWARD; A. EISENBERG; B.C. EU; P.G. FARRELL; D.F.R. GILSON; D.N. HARPP; J.F. HARROD; J.J. HOGAN; G.E. JUST; S.G. MASON; K.K. OGILVIE; M. ONYSZCHUK *(Chairman);* D. PATTERSON; A.S. PERLIN; W.C. PURDY; R.F. ROBERTSON; L.E. ST-PIERRE; M.A. WHITEHEAD; L. YAFFE

Emeritus Professor - G.C.B. CAVE; A. TAURINS

Associate Professors - J.M. FRESCO; W.C. GALLEY; A.E. GROSSER, B.C. SANCTUARY; A.G. SHAVER; D.J. SIMKIN

Assistant Professor - E.D. SALIN

Senior Research Associate - D.A.I. GORING

Research Associates - H. BOLKER: D.G. GRAY; R. ST. JOHN MANLEY; A.A. ROBERTSON; T.G.M. VAN de VEN

Associate Members - M. DIKSIC *(Neurology and Neurosurgery);* G. DONNAY *(Crystal Chemistry);* H.L. GOLDSMITH *(Medicine);* M. KING *(Medicine);* O.A. MAMER *(Spectroscopy).*

ADMISSION

The minimum academic standard for admission is normally a high second class standing. Applicants from other institutions should have an academic background equivalent to that of a McGill graduate in honours chemistry or major in chemistry. If possible candidates should specify the field of research in which they are interested.

All inquiries concerning graduate work in the Department of Chemistry should be addressed to the Chairman of the Admissions Committee, Department of Chemistry.

REQUIREMENTS

M.Sc. and Ph.D. Degrees

1. Students must take such examinations as may be required in (a) assigned courses given in the Department of Chemistry, (b) assigned cognate courses given in other departments, (c) assigned foreign languages. Courses are assigned after taking into consideration the student's previous training and research interest.
2. Students must complete successfully a research project and submit an acceptable thesis thereon.
3. Students must satisfy the examiners in an oral examination on the thesis and related subjects (required only of candidates for the Ph.D. degree).
4. All the usual requirements of the Faculty of Graduate Studies and Research must be satisfied.

FINANCIAL ASSISTANCE

Financial assistance for accepted graduate students who do not hold fellowships or scholarships is normally available in the form of laboratory demonstratorships/assistantships, and occasionally by payment from research funds. Graduate students are expected to devote between 6-8 contact hours per week during the academic session to their teaching duties. Financial assistance during the four summer months is provided from research funds.

EXAMINATIONS IN CHEMISTRY

1. Examinations in assigned courses are normally taken by the candidates in January and May. In special circumstances, and with the permission of the Department and the Faculty, they may be taken in September.
2. A candidate for the Ph.D. degree shall pass all such examinations, other than those in certain special courses, before the final year, except in special circumstances and then only with the approval of the Department.

RESEARCH IN CHEMISTRY

Members of the Department of Chemistry are active in directing research in the following fields:

Analytical

Molecular complexes; solvation and polymerization in non-aqueous solutions; complex ions; metal ion separations; hydration and solvation in solvent extraction; kinetic processes in analytical chemistry; specificion electrodes.

Bio-organic

Enzyme chemistry; protein and nucleic acid structure and function; active site stereochemistry; molecular basis of regulation and pharmacological action.

Biophysical

Excited electronic states of proteins and nucleic acids; spectroscopic probes of biopolymer conformation; sensitized photochemistry in biopolymers; dynamics of protein and nucleic acid conformations.

Colloid and Polymer

Monomolecular layers; solution properties of high polymers; molecular morphology; electrokinetics; absorption; rheology and stability of dispersions; phase transitions in polymers; polymer reinforcement; radiation effects and solid-state polymerization; mechanisms of polymerization reactions; wetting and spreading; the glass transition; molecular dynamics and polymer properties; ionic polymers; cellulose and paper; carbohydrate biopolymers; pollution abatement; polymer melt rheology; synthetic latices; rheo- and electro-optical phenomena.

Inorganic

Germanium and silicon chemistry; coordination of Group III, IV and V halides; inorganic polymers; I.R. laser Raman, N.M.R., N.Q.R., and mass spectra of inorganic and organometallic complexes; inorganic reaction mechanisms; catalysis; synthesis of novel organometallic complexes.

Organic

Synthesis and structure of heterocyclic compounds; steroids; natural products; carbohydrates; cellulose; lilgnin; reactions in strong acids; photo-chemistry; plant-growth regulators; organic sulphur, phosphorus, and silicon chemistry; stereo-chemistry; $_{13}C$ NMR; reaction mechanisms; charge transfer complexes; new synthetic methods; conformational analysis; solvation effects; substituent effects; polymer supports.

Physical

Molecular beams; laser excited elementary reactions; matrix isolation of radicals; high resolution and "wide line" N.M.R.; Mössbauer Effect spectroscopy; nuclear quadrupole resonance; electron spin resonance; emission and absorption spectroscopy; addition agents in the electrodeposition of metals.

Radiochemistry and Nuclear Chemistry

Elucidation of nuclear reactions using the McGill synchrocyclotron and Chalk River nuclear reactors; fission and spallation reactions; decay scheme studies; characteristation of new radioactive species.

Theoretical

Ab initio and semi-empirical molecular orbital theory; d-orbitals; population analysis; self-consistent coulomb and overlap integral calculations; atom and molecule scattering theory; theory of transport processes; chemical kinetics in gases and liquids.

COURSES FOR HIGHER DEGREES

Advanced Undergraduate Courses

Any of the following courses may be required of a student who is admitted to the Graduate Faculty if the equivalent has not been taken previously. Descriptions of these courses may be found in the Faculty of Science Announcement.

180-345A MOLECULAR PROPERTIES AND STRUCTURE I. (3 lectures).

180-352B STRUCTURAL ORGANIC CHEMISTRY. (3 lectures).

180-353A SURFACE CHEMISTRY. (1 lecture).

180-355B MOLECULAR PROPERTIES AND STRUCTURE II. (3 lectures).

180-371A,B,D, INORGANIC CHEMISTRY LABORATORY. (4 hours).

180-381A CHEMISTRY OF THE TRANSITION ELEMENTS. (3 lectures).

180-382A NATURAL PRODUCTS CHEMISTRY. (3 lectures).

180-387D ANALYTICAL CHEMISTRY. (1 lecture and 3 hours laboratory).

180-392A,B,D INTEGRATED INORGANIC/ORGANIC LABORATORY. (4 hours).

180-404B PHYSICAL CHEMISTRY OF BIOPOLYMERS.

180-452A PHYSICAL ORGANIC CHEMISTRY.

180-455B INTRODUCTORY POLYMER CHEMISTRY. (3 lectures).

180-456A MOLECULAR PROPERTIES AND STRUCTURE III. Advanced quantum chemistry. (3 lectures).

180-457B INSTRUMENTAL METHODS OF ANALYSIS.

180-472B SYNTHETIC ORGANIC CHEMISTRY.

180-475A CHEMICAL KINETICS. (3 lectures).

180-476A,B QUANTUM CHEMISTRY. (3 lectures).

180-481A,B, MODERN TOPICS IN INORGANIC CHEMISTRY.

180-487A SELECTED TOPICS IN MODERN ANALYTICAL CHEMISTRY.

180-493B INTRODUCTION TO STATISTICAL THERMODYNAMICS.

180-497B ANALYTICAL SPECTROSCOPY.

Graduate Courses

180-543A THE CHEMISTRY OF PULP AND PAPER. (2 lectures; undergraduate prerequisite/corequisite: Core curriculum in chemistry). The processes for converting wood to paper are described with emphasis on the relevant organic, physical and surface chemistry.
Drs. Gray and A.A. Robertson

180-577B ELECTROANALYTICAL CHEMISTRY. The application of electroanalytical techniques including polarography, coulometry and chronopotentiometry to inorganic, organic and biochemical analysis.
Professor Purdy

180-585B COLLOID CHEMISTRY. (prerequisite: Chemistry core curriculum or equivalent). Principles of the physical chemistry of phase boundaries. Electrical double layer theory; van der Waals forces; Brownian motion; kinetics of coagulation; electrokinetics; light scattering; solid/liquid interactions; adsorption; surfactants; hydrodynamic interactions; theology of dispersions. (Not open to students who have taken 180-485A,B).
Professor Mason, Drs. Gray and Van de Ven

180-597B ANALYTICAL SPECTROSCOPY. (3 credits, 2 lectures; 3 hours laboratory; Prerequisite 180-457A or permission of instructor. 180-457A may be taken concurrently). The design and analytical use of spectroscopic instrumentation will be examined with respect to fundamental and practical limitations. Classical emission, fluorescence, absorption and chemical luminescence will be discussed. Contemporary topics may include photo-acoustic spectroscopy, multielement analysis, X-ray fluorescence and modern multiwavelength detector systems.
Professor Salin

80-602B NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY. A general survey of nuclear magnetic resonance spectroscopy. The analysis of first and second order spectra. Theory of chemical shifts and coupling constants. Applications of n.m.r. in various areas of chemistry will be discussed.
Professor Gilson

- **180-603A INFRARED AND RAMAN SPECTROSCOPY.** Applications of group theory to vibrational spectroscopy; theory of molecular vibrations; determination of molecular structures and vibrational assignments; instrumental design and experimental techniques; "group" frequencies; recent developments.
Professor Simkin

180-605B ELECTRONIC SPECTROSCOPY. Theory of electronic spectra of molecules including organic molecules and inorganic complexes. Energy levels, molecular symmetry and selection rules; vibrational interactions with electronic states. A discussion of current experimental techniques including absorption, fluorescence, phosphorescence, circular dichroism, magnetic circular dichroism, and photo electron spectroscopy.
Professor Simkin

- **180-611A INORGANIC TOPICS I.** This advanced level course surveys recent trends in inorganic chemistry. Possible topics include bio-inorganic chemistry, main group chemistry, structure, reactions and mechanisms in inorganic chemistry, catalysis.
Professor Harrod

180-612B INORGANIC TOPICS II. Organometallic Chemistry. This course is intended as a first course at the graduate level in organometallic chemisty. The theory and practice of the field is treated starting from basic principles of inorganic and organic chemisty.
Professor Shaver and Staff

180-621A RECENT ADVANCES IN ORGANIC CHEMISTRY. A systematic survey of the mechanisms of the most common organic reactions from studies of reactions in the current literature.
Professor Edward

- **180-622A HETEROCYCLIC COMPOUNDS.** The properties and reactions of heterocyclic compounds, especially aromatic derivatives, and considerations of the mechanisms of their reactions. The spectroscopy of heteroaromatic compounds.
Professor Harpp

180-623B ORGANIC STEREOCHEMISTRY. Recent advances in conformational analysis, with particular reference to steroids, alkaloids, and carbohydrates, application of optical rotation, rotary dispersion, u.v., i.r., and n.m.r. spectroscopy to conformational problems.
Professors Belleau and Perlin

180-624B SPECIAL TOPICS IN ORGANIC CHEMISTRY. An advanced course in mechanistic and/or structural organic chemistry, together with detailed consideration of special topics; these topics will be decided just prior to the session and may include photo-chemistry, organic chemistry of sulphur and phosphorus, mass spectrometry, etc. Further details may be obtained from the instructor.
Professors Farrell and Mamer

- **180-626D THE FUNDAMENTALS OF MEDICINAL CHEMISTRY.** Topics of current interest in medicinal chemistry; molecular pharmacology; the chemical synthesis and mode of action of drugs; receptor chemistry; drug design; chemotherapy; active site chemistry.
Professor Belleau

- **180-627D SPECIAL TOPICS II.** An advanced course on subjects of current interest in chemistry (e.g. electroorganic chemistry, molecular orbital theory, organic synthesis, etc.).
Staff

180-628B RECENT ADVANCES IN THE ORGANIC CHEMISTRY OF BILOGICAL COMPOUNDS. The main emphasis will be on the current research of

organic chemists on compounds of biological interest. This might include terpenes, alkaloids, steroids, prostaglandins, carbohydrates, proteins, lipids and nucleic acids.
Professor Ogilvie

180-631D SELECTED TOPICS IN ANALYTICAL CHEMISTRY. A directed reading course with individual student-professor conferences, and intended mainly for students specializing in analytical chemistry. Topics are chosen to meet the individual needs of each student.
Analytical Staff

180-635A CHEMICAL LABORATORY AUTOMATION I. (lectures plus laboratory; Prequisites: 308-200 or equivalent, 180-387D, -393A/B). Automation and data handling with respect to modern chemical laboratory instrumentation.
Professor Salin

180-636B CHEMICAL LABORATORY AUTOMATION II. (Prerequisite: 180-635A). Students will undertake a chemical laboratory automation project. Design and implementation problems will be discussed by the students in seminars and avanced topics in automated chemical instrumentation will be presented. Several experiments will be required.
Professor Salin

180-645A,B,D QUANTUM MECHANICS. Brief review of solvable problems in non relativistic quantum mechanics; theory of many-electron systems and its application to molecules and atoms. Additional topics are chosen to meet the interests of the students.
Professor Whitehead

180-646A, B STATISTICAL MECHANICS. Fundamental hypotheses; microcanonical, canonical, grand canonical ensembles; ideal gases, monatomic, diatomic, and polyatomic; chemical equilibria; Mayer's theory of cluster expansion; distribution functions for liquids; theory of solutions; lattice statistics; quantum statistics.
Professor Eu

180-666D SPECIAL TOPICS. Critical and original essays are required on various subjects of current interest in chemistry.
Staff

180-671A ORGANIC CHEMISTRY OF SYNTHETIC AND NATURAL POLYMERS. A survey presenting an integral view of polymer chemistry with equal emphasis on both natural and synthetic polymers. All biopolymers are included: polysaccharides, proteins, nucleic acids, rubbers, and lignins.
Dr. Bolker

180-672B THE POLYMER SOLID STATE. Melting and crystallization phenomena in linear high polymers; crystal structure, defects, and morphologyin macromolecular crystals.
Dr. Manley

180-673A POLYMERS IN SOLUTIONS. Thermodynamics of regular and of polylmer solutions; osmotic pressure; phase separations; polymer configurations; light scattering; ultracentrifugation; viscometry; gel permeation chromatography; polyelectrolytes.
Professor Patterson and Drs Goring and Grey

• **180-674B INTRODUCTORY PHYSICAL CHEMISTRY OF POLYMERS.** A survey course on the structure of polymers; kinetics and mechanisms of polymer synthesis; molecular weight distributions; polymer configurations and the thermodynamics of polymer solutions; rubber, elasticity, osmometry and viscosity.
Professor St. Pierre

• **180-675B MECHANICAL PROPERTIES AND RHEOLOGY OF POLYMERS.** Mechanical properties of polymers; glass transition, visco-elasticity, rubber elasticity, failure. Relation to molecular properties, mechanical spectroscopy, dielectric properties, birefringence.
Dr. A.A. Robertson and Professor Eisenberg

180-681A SELECTED TOPICS IN RADIOCHEMISTRY. Intended for those who may be using radio-active tracers. Fundamentals of radioactivity, types of radiations, methods of measurement, radiochemical separations, radiochemical laboratory design, and health precautions are discussed. Special topics such as activation analysis, 14C dating, age of the earth, energy production in sun and stars will be discussed. A comprehensive essay on some pertinent topic in radiochemistry is a required component for this course.
Professor Yaffe

180-682D NUCLEAR CHEMISTRY. Radioactivity; nuclear models; liquid drop, shell, Nilsson, and Fermi gas; α-decay; β-decay; γ-decay; nuclear reactions, nuclear fission.
Professor Hogan

180-720D COLLOQUIUM. Each student is required to participate in Research Colloquia which are held regularly in the department. These involve the presentation and discussion of papers dealing either with the student's own research or with recent research publications.

E5 DEPARTMENT OF CIVIL ENGINEERING AND APPLIED MECHANICS

Macdonald Engineering Building
817 Sherbrooke Street West
Montreal, PQ
Canada H3A 2K6

STAFF

Professors - G.S. CAVADIAS: P.J. HARRIS *(Chairman);* M.S. MIRZA; J.C. OSLER; R.G. REDWOOD; S.B. SAVAGE; B. STAFFORD SMITH; C.J. TURKSTRA; R.N. YONG

Associate Professors - V.H. CHU; R.G. COX; R.D. JAPP; D. MITCHELL; D.A. SELBY; L.D. SPRAGGS

Assistant Professors - R. GEHR; S.C. SHRIVASTAVA

Auxiliary Professors - R.H. CLARK; D.G. MURRAY; G.D. RANSFORD; A.C. STACHURSKI; D.R. STIRLING

Advanced courses of instruction and laboratory facilities are available for engineering graduate students desiring to proceed to the degrees of M.Eng. and Ph.D.

Graduate studies and research are at present being conducted in the fields of structures and structural mechanics, fluid mechanics and hydraulics, soil behaviour, soil mechanics and foundations, water resources engineering, sanitary and municipal engineering, and environmental engineering.

ADMISSION

The general rules of the Faculty apply and are detailed in the *General Information and Faculty Regulations* section. The minimum academic standard for admission is normally a cumulative Grade Point Average of 3.0 or better.

REQUIREMENTS

M.Eng. Degree

Candidates may satisfy the requirements for this degree by following one of two options;

In Option A, a research thesis and a minimum of 5 courses are required, whereas Option B requires a minimum of 8 courses (30 credits), plus a project. These minimum course requirements pertain to well prepared students; others may be required to take additional courses as determined in consultation with their Director of studies or research. In Option A, a thesis describing the candidate's research is to be submitted in accordance with the rules of the Faculty. Three terms of resident study at McGill University is required for the degree. This is a minimum requirement, and usually a longer period will be necessary. This residence requirement can also be satisfied by Option B students through part-time (evening) studies over a period of three or more years.

Ph.D. Degree

Candidates normally register for the M.Eng. degree, Option A, in the first instance. However, candidates who have a Master's degree acceptable to the Department may be considered for direct registration for the Ph.D. degree. The Ph.D. program consists of a research project and courses as required to develop the candidate's background. Candidates are expected to take a comprehensive preliminary oral examination within the first year of their Ph.D. registration. They must fulfill the requirements outlined in the general rules of the Faculty. There is no foreign language requirement.

COURSES FOR HIGHER DEGREES

Not all of the courses listed below are given each year; most courses are offered every two years. A list of courses to be offered is made available in the Department prior to each term. 500 level courses are assessed at 3 credits; 600 and 700 level courses are 4 credits unless otherwise specified.

303-514B STRUCTURAL MECHANICS. Transformation of stress and strain in three dimensions, basic equations of elasticity, stress concentrations, theories of failure, unsymmetrical bending of beams, shear centres, torsion of structural sections, elementary analysis of plates and shells.
Professor Harris

303-540A URBAN TRANSPORTATION PLANNING. Urban travel demand characteristics; transportation goals and objectives; planning, design and co-ordination of street systems, mass transit networks, and parking facilities; economic and environmental issues; urban goods movement; development and evaluation of transport alternatives.
Messrs. Stachurski and Stirling

303-546A,B SELECTED TOPICS IN CIVIL ENGINEERING. Special topics related to Civil Engineering will be presented by staff and visiting lecturers.

303-571B HYDRAULIC MACHINES. Types of pump, performance data and operation of centrifugal pumps, design of pump intakes. Types of turbine, similitude, cavitation, sizing of power stations. Pump-turbines, transients, pressure rise, overspeed. Frequency control of hydraulic turbines.
Dr. Ransford

303-573A HYDRAULIC STRUCTURES. Hydraulic aspects of the theory and design of hydraulic structures. Storage dams, spillways, outlet works, gates and valves, diversion works, drop structures, conveyance and control structures.
Mr. Murray

303-577B SEDIMENT TRANSPORT. Mechanics of entrainment, transportation and deposition of solids by fluids. Sediment properties; threshold of movement; ripples, dunes and antidunes; suspended load; bed load; stable channel design; meandering of rivers; wave-induced transport, turbidity currents; transport of solids in pipelines; aeolian transport.
Professor Savage

303-602B FINITE ELEMENT ANALYSIS. (Prerequisite: 303-608A). Development of simple and high order two and three dimensional, plate bending and shell elements. Displacement models, stress and hybrid models. Applications with emphasis on the static solution of two and three dimensional solids.
Professor Shrivastava

303-603A STRUCTURAL DYNAMICS. General theory of structural response to periodic and aperiodic forces. Spectrum methods. Numerical methods. Earthquake analysis.
Professor El-Khoraibie

303-604A THEORY OF PLATES AND SHELLS. Analysis of stress and deformation of plates bent by transverse loads. Plates on elastic supports. Energy and approximate methods of solution. Anisotropic plates. Membrane theory of shells. General theory of cylindrical shells. Symmetrical bending of shells of revolution. Applications of theory to plate and shell structures.
Professor Harris

303-605A STABILITY OF STRUCTURES. Beams subject to axial and lateral loads. Columns with various end conditions. Buckling of frames. Buckling beyond the proportional limit. Columns of variable cross section. Latticed columns. Lateral buckling of beams. Buckling of plates and shells.
Professor Harris

303-606B PLASTIC STRUCTURAL ANALYSIS. Basic theorems. Limit analysis and elastic-plastic deflections of frames. Frame instability and strain hardening effects. Non-proportional loading. Minimum weight design.
Professor Redwood

303-607A ADVANCED DESIGN IN METALS. Physical properties of metals, residual stresses, design concepts. Column theories, column strength, beam-column design, structural frames. Plastic design concepts, ultimate strength, axial forces with bending, shear forces with bending. Economic design considerations.
Professor Redwood

303-608B ADVANCED STRUCTURAL ANALYSIS. Advanced topics in matrix analysis, substructures, transfer matrices, rank technique, mixed methods, finite differences applied to continua, computation methods, structural optimization, fully stressed design, minimum weight design by mathematical programming.
Professor Stafford Smith

303-609A STRUCTURAL SAFETY. Structural safety analysis and code formulation based on probabilistic models and decision concepts. Elementary reliability analysis - classical and approximate solutions. System reliability. Formulations suitable for implementation in codes. Applications in modern building codes.
Professor Turkstra

303-610B SPECIAL TOPICS IN STRUCTURAL MECHANICS. Special problems in the theory and design of structures. These may include topics in the theories of elasticity and plasticity and advanced theories of shell structures.

303-611B ANALYSIS AND DESIGN OF HIGHRISE STRUCTURES. Historical review, factors governing structural form. Loading, approximate analysis of braced and rigid frames, structural idealization, associated techniques of matrix analysis, diaphragm analysis, link-connected walls, beam-connected walls, connected walls and frames, core-supported structures, three-dimensional frames and walls. Design project.
Professor Stafford Smith

303-612B EARTHQUAKE-RESISTANT DESIGN OF STRUCTURES. Static and dynamic analyses, design codes, effects of local ground conditions, ductility demands on structural components. Inelastic behaviour of beams, columns, joints, shear walls and bracing under cyclic loading of steel concrete and masonry structures. Design applications.
Professors Mitchell and Redwood

303-618B DESIGN IN CONCRETE I. Concrete physical properties, creep, shrinkage; review of ultimate strength design; combined loadings; design of frames and flat plates; limit design, yield line theory; prestressed concrete, partial prestressing and load balancing. The course will include group projects.
Professor Mirza

303-619B DESIGN IN CONCRETE II. Design topics will be selected from among the following: shear walls and deep beams, slender members, applications of probabilistic concepts to structural concrete design, analysis and design of folded plates, cylindrical shells, tanks, arches and bridges, special topics in prestressed concrete.
Professors Harris and Mirza

303-620A STRUCTURAL MODELS. Structural models; direct and indirect models; demonstration models; theory, similitude and dimensional analysis; materials, fabrication, loading and instrumentation techniques; confidence levels; research projects to illustrate the use of qualitative and quantitative models to study structural behaviour.
Professor Mirza

303-621A BEHAVIOUR OF CONCRETE STRUCTURES. Behaviour of reinforced and prestressed concrete members in flexure, shear, torsion and combined modes of loading. Forces at steel-concrete interface. Crack propagation and failure.
Professor Mirza

303-622A PRESTRESSED CONCRETE. Material properties; prestressing methods and systems; the behaviour and design of members subjected to axial forces, bending, shear and torsion; prestress losses; design of statically determinate and indeterminate structures; composite precast construction; prestressed concrete floor systems. Application to bridge design.
Professor Mitchell

303-648A,B SPECIAL TOPICS IN CIVIL ENGINEERING. Special topics of an advanced nature relating to Civil Engineering will be presented by staff and visiting lecturers.

303-650B DISTRIBUTION AND COLLECTION SYSTEMS. Principles and practice of water transmission, distribution and storage design. Surface drainage and wastewater collection systems. Analysis, reinforcing and modification of existing systems. Economic aspects of systems and transmission.

303-651A THEORY OF WATER TREATMENT. Physical, chemical and microbiological aspects of surface, ground and treated waters. Gravimetric, volumetric and instrumental analysis of water samples. Principles of conventional and advanced water treatment methods for public water supplies. Water conditioning for industrial uses. Synthesis of treatment operation to produce water of a specific quality.
Professor Gehr

303-652B THEORY OF WASTEWATER TREATMENT. Waste surveys, wastewater characteristics and laboratory analyses. Population kinetics of micro-organisms, and their role in the various waste treatment processes. Conventional and advanced physical, chemical and biological processes of domestic and industrial waste treatment.
Professor Spraggs

303-653B STREAM POLLUTION AND CONTROL. Physical and chemical pollution and bacterial contamination of surface and groundwaters. Environmental health aspects of pollution. Planning and practice of pollution surveys. Data analysis and reports. Analysis of stream water quality and waste discharge standards in North America and Europe. Correlation and control of the discharge conditions and the degree of water and wastewater treatment, domestic and industrial.
Professor Spraggs

303-654B SANITARY ENGINEERING DESIGN. Complete problems in site selection, layout and design of water and wastewater treatment plants. Control and economic aspects of primary, secondary and tertiary plant operation.

303-655A WATER RESOURCES ENGINEERING. Legal, economic, conservational and technological aspects of the use of water resources. The concept of existing supplies and resource allocation. Planning factors and related problems of land use. Analysis of water quality management in North America and abroad.
Professor Spraggs

303-656A SYSTEMS ANALYSIS ENGINEERING. Introduction to systems analysis and mathematical optimization; structuring and solution of mathematical programming models with emphasis on linear and dynamic programming; sensitivity analysis and trade-off among design factors; application of systems analysis techniques to the solution of complex problems in the private and public sectors.

303-665A APPLIED ELASTICITY AND TENSOR CALCULUS. Scalars, vectors and tensors; second order symmetric tensors, principal axes, eigenvectors and eigenvalues; the stress and strain tensors; homogeneous isotropic materials; plane stress and plane strain; stress functions in cartesian and polar coordinates; complex variable methods in two dimensional elasticity; torsion of non-circular sections; strain energy methods; theories of elastic breakdown.
Professor Shrivastava

303-666B URBAN AND ENVIRONMENTAL ENGINEERING SYSTEMS (Prerequisite: 303-656A and probability theory). Advanced topics in the application of mathematical programming techniques and probability theory to the solution of urban and environmental engineering problems.

303-667A PLASTICITY. Criteria for yielding; Ideal behaviour, elastic-plastic, ideal plastic, rigid plastic; Non-ideal behaviour, work hardening, strain hardening; Physics of plastic behaviour, yield and failure; Principal stress space, ideal and non-ideal; Yield surfaces; Stability Postulates; Plastic Potential; St. Venant's Postulate; Plastic stress-strain relations, Levy-Mises, Prandtl-Reuss; Uniqueness; Limit Theorems.
Professor Yong

303-670B WATER WAVES AND ALLIED MOTIONS. Motions of seas and rivers and their interaction

with bottom and shore; deep and shallow water surface waves of all types, dispersion and non-linearity; conservation equations, wave interaction; internal waves; inertial waves.
Professor Savage

303-672A ADVANCED HYDRAULICS. Design of channels for non-uniform flow; computation of backwater curves, effect of ice and obstructions. Computations of unsteady flow in open channels; abrupt waves, flood waves, tidal propagation.
Professor Savage

303-674A FLUID MECHANICS OF POLLUTION I. Application of fluid mechanics to problems in water pollution control; Mixing, dilution and dispersion of pollutants discharged into lakes, rivers, estuaries, and oceans; Salinity intrusion in estuaries and its effects on dispersion; Biochemical oxygen demand and dissolved oxygen as water quality indicators; Mixing in stratified flow; Thermal Pollution; Sewage disposal in the ocean outfall; Oceanic diffusion processes; Oil pollution.
Professor Chu

303-675A FLUID MECHANICS OF POLLUTION II. Application of fluid mechanics to problems of air pollution; Properties and sources of air pollution; Atmospheric turbulent diffusion; Characteristics of atmosphere boundary layers; Stable and unstable atmosphere; Aerodynamics of plumes; Wind tunnel modelling and similitude; Coagulation and setting of particles; Visibility and pollution.
Professor Cox

303-676B HYDRODYNAMICS. Flows of inviscid fluids. Eulerian and Lagrangian equations, Bernoulli's and Cauchy's Integrals, irrotational motions. Surface waves in water, waves of finite amplitude, two-layer systems, Kelvin-Helmholtz instability. Vortex dynamics, Bjerknes' circulation theorem, motion of vortex filaments, instability of Karman's vortex streets, Squire's formula. Introduction to rotating flows, Proudman's Theorem, Taylor columns, inertial waves.
Professors Chu, Cox and Savage

303-678A GRAVITY CURRENTS AND RELATED PHENOMENA. Internal hydraulics of one-layer and two-layers systems, Boussinesq's approximation, concepts of specific energy and specific force, upstream and downstream influences. Waves, instabilities and turbulence in continuous stratified flows; the flux, gradient and local Richardson numbers. Turbulent mixing and entrainment across gravity and turbulent interfaces. Turbulent thermals, turbulent plumes and related mixing phenomena.
Professor Chu

303-680A FUNDAMENTALS OF SOIL BEHAVIOUR. Physical and chemical properties of clays; clay-water interaction, soil structure, soil-water potential. Infiltration and diffusion, volume changes. Soil strength parameters, pore water pressures and parameters.
Professor Yong

303-681B ENGINEERING ASPECTS OF SOIL BEHAVIOUR. (Prerequisite: 303-680A). Consolidation phenomenon, shear strength of cohesive soils, granular soil strength, soil freezing, soil dynamics, creep properties. Equilibrium and compatibility. Yield criteria.
Professor Yong

303-682A APPLIED SOIL MECHANICS. Composition and properties of natural soils and rock; geologic processes of formation and alteration, site investigations, evaluation of engineering properties for design applications. Case records involving influence of in-situ properties on predicted versus actual performance. Compaction, statistical compaction control. Improvement of soil and rock properties.
Professor Osler.

303-683B ADVANCED FOUNDATION DESIGN. Design of shallow foundations, bearing capacity and settlement, combined footings and rafts; eccentric and inclined loads, footings in slopes, machine foundations. Deep foundations; caissons and piers, piles, pile groups, tension piles. Tunnels and tunnel linings, flexible culverts. Earth pressures, retaining walls, sheeting and bracing, cofferdams. Case records of foundation performance including failures.
Professor Osler

303-684A GROUNDWATER AND SEEPAGE. Flow of incompressible fluids through porous media, fundamentals of groundwater flow, confined and unconfined flow, conformal mapping, graphical flow nets and the use of analogs, flow through earth structures, transient flow surfaces, numerical solutions by means of digital computers.
Professor Japp

303-685B DRAINAGE ENGINEERING. Hydraulics of wells, pumping tests, theories of flow into auger holes and drain tubes, seepage from canals and ditches, seepage control in earth structures, soil stabilization by drainage, relief wells, sand drains, foundation drainage and construction dewatering. Surface drainage problems and unsaturated flow.
Professor Japp

303-686B EARTHWORK ENGINEERING. Design and construction of earth and rock fills, stability, improvement of stability with berms, etc.; techniques of fill placement over soft ground, induced pore pressures during fill placement. Stability of cuts in soil and rock, techniques of analysis, influence of pore pressures on stability. Interaction between embankments and adjoining structures, such as abutments. Case records of embankment performance and failures.
Professor Osler

303-687B PAVEMENT DESIGN. Types and properties of bituminous materials, laboratory testing; design of bituminous concrete mixes, construction control. Analysis of rigid and flexible pavement systems using elastic and viscoelastic theory. Design of airfield and highway pavements. Moisture content changes beneath pavements, frost action and frost susceptibility of soils, soil stabilization. Pavement evaluation and strengthtening.
Professor Osler

303-688A SOIL DYNAMICS. Basic system dynamics, wave propagation in solids, wave propagation in soils, constitutive relations, dynamic equilibrium and stability, yielding, strain-rate effects, behaviour of soils subjected to cyclic and impulsive loadings.
Professor Japp

303-689B DYNAMICS OF FOUNDATIONS AND EARTH STRUCTURES. Design of foundations subjected to vibratory and impulsive loadings, evaluation of dynamic soil properties, lumped mass analogies, earthquake effects in slope stability and earth-work structures.
Professor Japp

303-692D PROJECT. (2 credits) This project relates to the M.Eng. degree, Option B.

303-693D PROJECT. (3 credits) See 303-692D.

303-696D PROJECT. (6 credits) See 303-692D.

303-697D PROJECT. (7 credits) See 303-692D.

303-724B ADVANCED TOPICS IN CONCRETE STRUCTURES. Seminar approach to current research topics in the field of concrete structures.

303-757B SPECIAL TOPICS IN SANITARY ENGINEERING. Special studies in the theories, research endeavours, and design techniques related to the sanitary engineering field.

303-771B SPECIAL TOPICS IN FLUID MECHANICS. After the development of the general equations of motion, emphasis will be placed on various mathematical methods applied to problems in fluid mechanics. Similarity methods; singular perturbation analysis; method of characteristics; integral methods. Examples will be chosen from various fields.
Professor Cox

303-791A PHYSICS AND CHEMISTRY OF SOILS I. Crystallographic structure of soil particles, clay-water electrolyse systems, X-Ray and D.T.A. studies, concepts of soil water, potentials in soil-water systems.
Professor Yong

303-792B MECHANICS OF PARTICULATE MEDIA. (Prerequisite 303-667B). Properties of particulate media, contact theory, equilibrium and compatibility, elastic-plastic problems, single phase and two phase systems. Yield criteria, critical state analyses, micro and macro analysis, stress distribution, arching effects, bulk flow problems.
Professor Yong

303-793B PHYSICS AND CHEMISTRY OF SOILS II. (Prerequisite: 303-791A). Thermodynamics of clay-water interaction, soil freezing, ion and base exchange, clay-water interaction and environmental effects in relation to engineering properties.
Professor Yong

303-794A SPECIAL TOPICS IN SOIL MECHANICS. Special problems in research, theory, application and design related to Soil Mechanics.
Professor Yong

303-795B SPECIAL TOPICS IN SOIL BEHAVIOUR. Special Soil Behaviour problems in research, theory and application with particular emphasis on environmental weathering effects and other constraints.
Professor Yong

E6 SCHOOL OF COMPUTER SCIENCE

Burnside Hall
805 Sherbrooke Street West
Montreal, PQ,
Canada H3A 2K6

STAFF

Professors - M.M. NEWBORN *(Director);* W.D. THORPE
Associate Professors - D. AVIS; D. BURRAGE; V. CHVATAL; L. DEVROYE; T.H. MERRETT; C.C. PAIGE; G.F.G. RATZER; G.T. TOUSSAINT
Assistant Professors - G. CORMACK; N. FRIEDMAN; N. HORSPOOL; D. THERIEN
Lecturers - A. GREENBERG

The School of Computer Science provides instruction and research at the graduate level in theory and applications of computer science. Its programs are based on close cooperation with computer science activities in other departments of the University. It offers programs leading to the degrees M.Sc., M.Sc., (Applied) and Ph.D. in Computer Science, with courses predominantly from those outlined below, augmented by courses in other departments, and with research activities directed either by the staff of the School or members of associated Faculties for candidates interested in particular computer applications.

Computer facilities include the University's AMDAHL V7 computer and the School's PDP 11/45, PDP 11/20, Data General multiprocessing system consisting of eight Nova computers, Cromenco Z-80, as well as several other small systems. Research interests include artificial in-

telligence, numerical methods, statistical methods, theory of algorithms, combinatorial problems, databases, programming languages, operating systems, and microcomputers.

ADMISSION

M. Sc. Degrees

The normal requirement for admission is a bachelor's degree (C.G.P.A. 2.8 or better, or equivalent) with a significant component of course work in Computer Science; however candidates with a good background in mathematics and experience in computer programming may be admitted.

Two programs are offered, leading respectively to the degrees of M.Sc. and M.Sc. (Applied).

Ph.D. Degree

Candidates who do not hold a Master's degree from a recognized department of Computer Science will normally first register for the M.Sc. Candidates with excellent standing in the M.Sc. program may be allowed to proceed to the Ph.D. degree without first submitting a Master's thesis; however, in other cases, permission to proceed to the Ph.D. may depend on the standing obtained in the M.Sc. Exceptional candidates who do not hold a Master's degree in Computer Science are, on rare occasions, admitted directly to the Ph.D. program.

REQUIREMENTS

M.Sc. Degree

Normal requirements are a thesis and six half-year courses. Courses will be chosen with guidance by the candidates' adviser, subject to approval by the staff of the School.

M.Sc., (Applied) Degree

This is a two-year program, normal requirements for which are nine half-year courses and three computer applications projects. The projects are to be supervised by different faculty members. Candidates may obtain approval of the staff of the School to combine two or all three projects into an enlarged project. Projects will be chosen with guidance by the candidates' adviser subject to approval by the staff of the School. The projects are administered as courses 308-680, 308-681 and 308-682.

Ph.D. Degree

Candidates must fulfill the requirements outlined in the general rules of the Faculty. They must successfully complete the comprehensive examinations and submit a Ph.D. thesis. There is no language requirement.

COURSES FOR HIGHER DEGREES

308-530A FORMAL LANGUAGES. (3 hours). The definition of a language. Grammars. Finite automata and regular languages. Context free languages. Pushdown automata. Turing machines and undecidable problems. Context sensitive and phrase-structure languages.
Professor Therien

308-540A MATRIX COMPUTATIONS. (3 hours). Designing and programming reliable numerical algorithms. Stability of algorithms and condition of problems. Reliable and efficient algorithms for solution of equations, linear least squares problems, the singular value decomposition, the eigenproblem and the generalized eigenproblem. Perturbation analysis of these problems. Special cases: symmetric matrices, positive definite matrices, structured matrices.
Professor Paige

308-566A COMPUTER METHODS IN OPERATIONS RESEARCH I. (3 hours). Use of the computer in solving deterministic problems in operations research. Linear programming and extensions. Efficient methods for large problems. Properties and use of commercial LP codes and LP data management systems.
Professor Paige

308-567B COMPUTER METHODS IN OPERATIONS RESEARCH II. (3 hours). Use of the computer in solving problems in operations research with emphasis on probabilistic problems. Dynamic programming. Markov decision processes. Inventory models. Waiting line models. Computer simulation.
Professor Chvatal

308-573A,B MINICOMPUTERS. (3 hours). Characteristics of minicomputers; their internal structure. Assembler and machine language programming with emphasis on PDP11. Assemblers, loaders and simulators for several machines. Manufacturers' supplied software including operating system. Minicomputer applications. Students will be assigned "hands-on" projects.
Professor Ratzer

308-610A INFORMATION STRUCTURES I. (3 hours). Basic concepts for the analysis of algorithms, a study of the properties of linear lists, stacks, queues, sequential allocation, linked allocation, circular lists, doubly linked lists, arrays and orthogonal lists.
Professor Chvatal

308-611B INFORMATION STRUCTURES II. (3 hours). Properties of data stored in tree structures. Topics include traversing binary trees, binary tree representation of trees, mathematical properties of trees, lists, garbage collection techniques and dynamic storage allocation techniques.
Professor Avis

308-612A DATABASE SYSTEMS. (3 hours). An introduction to abstract data structure and to techniques of database implementation. Topics: review of sentential and predicate logic, relational view of data, relational calculus, relational algebra, normalization; hierarchial and network views of data, implementation techniques, existing database systems (chosen from: ADABAS, DBTG, IMS, S2000, TOTAL); data security and integrity.
Professor Merrett

- **308-614A COMPUTER METHODS IN SYSTEMS ANALYSIS I.** (3 hours). Analytical approaches to complex economic, commercial and industrial problems. The emphasis on computer simulation will be complemented by discussion of the underlying theory. Topics: discrete simulation - queuing theory, inventory theory, applications to operating systems, continuous simulation. Special languages and application packages: GPSS, GASP II, CSMP.

- **308-615B COMPUTER METHODS IN SYSTEMS ANALYSIS II.** (3 hours). This half-course is concerned with the structure, organization and retrieval of information with emphasis on computer and data base techniques. Applications to commercial problems and library science are discussed. Topics: Dictionaries. Logical, statistical and syntactical analysis of information. Retrieval. File organization. Data base retrieval systems. Evaluation of computer methods. Applications.

308-616A ORGANIZATION AND RETRIEVAL OF DATA. (3 hours). Data structures on secondary storage for files and databases, with emphasis on cost of operations on different file organizations. This is an analytical course which presupposes an acquaintance with the techniques of sequential, indexed sequential, hashed and inverted file organizations.
Professor Burrage

308-617B INFORMATION SYSTEMS. (3 hours). Logical aspects of information storage and retrieval with applications to commercial information systems. Familiarity with relational database concepts and with data organization and access costs is pre-supposed. Topics from: query languages and database programming languages, query logic and minimization; data and information models; database decomposition, data integrity and security.
Professor Merrett

308-620A PROGRAMMING LANGUAGES AND COMPILERS. (3 hours). A practical introduction to compiler design. Two high-level programming languages are introduced and used as a source of examples. The parsing, semantic analysis and generated code for these example constructs will be discussed.
Professor Horspool

308-621B ADVANCED TOPICS IN COMPILER CONSTRUCTION. (3 hours). An in-depth treatment of several topics in compilation, chosen from amongst: deterministic parsing, attribute grammars, translator writing systems, code optimization, interpreters, automatic formatting, error recovery and diagnostic aids. In addition, the class will participate in a compiler construction project.
Professor Horspool

308-624A HIGH-LEVEL COMPUTER LANGUAGES I. (3 hours). The structures, properties and advanced concepts in high-level programming languages. Comparative studies of most common high-level programming languages with particular emphasis on FORTRAN, ALGOL 60, PL/I, PASCAL, SNOBOL 4, APL and LISP.
Professor Cormack

308-625B HIGH-LEVEL COMPUTER LANGUAGES II. (3 hours). Recent developments in high-level languages with particular emphasis on new concepts and implementations. Concurrent programming languages. Problem oriented languages. Relation of high-level programming languages to advanced programming methodologies.
Staff

308-627B THEORY OF COMPUTER PROGRAMMING. (3 hours). Theory of computer programming, programming methodologies; automatic programming and computer assisted program synthesis, analysis and verification.
Staff

308-631B THEORY OF ALGORITHMS AND COMPUTATIONAL COMPLEXITY. (3 hours). Turing machines. Computability: recursive functions and Church's thesis. Undecidable problems. Computational complexity; machine-based complexity; time and space requirements for various computations. Random access machines and other models for digital computers. Efficiency of algorithms.
Professor Friedman

308-640A NUMERICAL ALGORITHMS I. (3 hours). Important algorithms in computational linear algebra will be studied, including those for solution of equations, least squares, eigenvalues, singular values, generalized inverses, and linear programming. The emphasis will be on numerical stability of algorithms and efficient usage of the computer.
Professor Paige

308-641B NUMERICAL ALGORITHMS II. (3 hours). Numerical algorithms for solving mathematical problems including: non-linear algebraic equations; approximation using polynomials, splines, and Fourier series; fast transforms; ordinary and partial differential equations. Numerical stability of algorithms and economy of computer time and storage will be considered. Required background

includes a previous numerical course with programming experience.
Professor Paige

308-643B LARGE MATRIX COMPUTATIONS. (3 hours). Practical algorithms for solving systems of equations, least squares problems, singular value problems and eigenvalue problems involving large matrices. Computer representation of large matrices. Matrices with special structure. Graphs and sparse matrices. Direct methods for large sparse symmetric and unsymmetric matrices. Iterative methods. Methods based on the Lanczos algorithm. Preconditioning.
Professor Paige

308-644A PATTERN RECOGNITION I. (3 hours). Feature extraction methods. Preprocessing techniques. Trainable pattern classifiers. Discriminant functions and their implementation via parametric and non-parametric training. Threshold logic units and perceptrons. The statistical approach to pattern recognition. Sequential classification. The approximation of probability distributions in classifier structure design. Estimation of density functions. Experimental methodology and applications.
Professor Toussaint

308-645B PATTERN RECOGNITION II. (3 hours; Prerequisite 308-644A). Design and analysis of pattern recognition experiments. Estimation of misclassification. Nonparametric techniques in classification and density estimation. Sequential classification. Automatic feature evaluation and selection. unsupervised learning and clustering. Compound decision theory and the use of context. Applications.
Professor Toussaint

308-650A ANALYSIS OF COMBINATORIAL ALGORITHMS. (3 hours). Design, implementation and analysis of efficient combinatorial algorithms for computing shortest paths, network flows, minimum cost network flows, spanning trees and matching in graphs. Applications to reliability of networks, critical path, transhipment, vehicle routing and machine sequencing problems. Efficient use of data structures to reduce running time.
Professor Chvatal

308-651B COMPLEXITY OF COMBINATORIAL ALGORITHMS. (3 hours). Classification of problems into 'hard' (NP-complete) and 'easy' (polynomially-bounded) categories. Reductions of various well-known problems to the NP-class. Exact and heuristic solution procedures. Relationships between combinatorial optimization and geometric problems. Techniques for generating lower bounds and efficient algorithms. Algorithms for geometric problems.
Professor Avis

308-661B NUMERICAL METHODS IN OPTIMIZATION. (3 hours). A unified exposition of numerical algorithms for solving unconstrained, linearly constrained, and nonlinearly constrained optimization problems. Treatment of problems with special structure and large problems. Students will need a knowledge of matrix computations and computer programming.
Professor Paige

308-671B COMPUTER SYSTEMS AND ORGANIZATION. Concepts and tools for the design and implementation of computer systems. Hardware concepts - CPU, memory, auxiliary storage, input-output processors, interrupt. Software concepts - process control, resource allocation and dispatching, file system organization and management, input-output and interrupt handling. Discussion includes batch-processing multiprogramming, multi-processing, and time-sharing systems.
Professor Horspool

308-680A,B or C APPLICATIONS PRJOECT I
Professor Avis

309-681A,B or C APPLICATIONS PROJECT II
Professor Avis

308-682A,B or C APPLICATIONS PROJECT III
Professor Cormack

308-690A COMPUTER METHODS IN PROBABILITY AND STATISTICS I. (3 hours). Random number generation. Tests for randomness. Goodness-of-fit tests. Random sampling and shuffling. Random numbers with prescribed distributions.
Professor Devroye

- **308-691B COMPUTER METHODS IN PROBABILITY AND STATISTICS II.** (3 hours; prerequisite 308-690A. Monte Carlo simulation. Monte Carlo integration. Algorithms for statistical analysis of data. Estimation of moments, distributions, densities and regression functions.
Professor Devroye

308-730D THE COMPUTER IN MATHEMATICAL RESEARCH. (3 hours). Examples of computer aided research in pure mathematics; number theory, combinatorial theory, finite geometries and configurations, group theory, graph theory, probability and mathematical statistics. Conversely, recent trends in pure mathematics arising from developments in computer science.
Staff

308-760A ADVANCED TOPICS: THEORY I.

308-761B ADVANCED TOPICS: THEORY II.

308-762A ADVANCED TOPICS: PROGRAMMING I.

308-763B ADVANCED TOPICS: PROGRAMMING II.

308-764A ADVANCED TOPICS: SYSTEMS I.

308-765B ADVANCED TOPICS: SYSTEMS II.

308-766A ADVANCED TOPICS: APPLICATIONS I.

308-767B ADVANCED TOPICS: APPLICATIONS II.

E7 CRYSTALLOGRAPHY

Frank Dawson Adams Building
3450 University Street
Montreal, PQ,
Canada H3A 2A7

Students wishing to undertake graduate studies in Crystallography should submit their application to G. Donnay, Professor of Crystallography. Applications will be assessed by an interdisciplinary committee, appointed for the purpose, and if the application is accepted, an appropriate program of study and research will be arranged.

GRADUATE COURSES

186-501A CRYSTAL CHEMISTRY. (2 hours lectures, 1 hour seminar. Prerequisite: Geology 186-211B). Discussion of crystal structures of important mineral groups, especially oxides, sulphides and silicates. Solid solution. Relation of structure to morphology and to chemical and physical properties of crystalline matter.
Professor Donnay

186-502A CRYSTAL-STRUCTURE ANALYSIS. (2 lectures; 1 laboratory). Elements of crystallography and diffraction physics basic to structure determination. Choice of crystal, principles underlying photographic and counter methods of collecting intensity data. Data reduction. F^2 synthesis. The phase problem. Trial and error methods, heavy-atom techniques, direct methods. Electron-density calculation. Refinement of structure.
Professor Donnay

186-503D CRYSTAL-STRUCTURE DETERMINATION. (6 hours laboratory; Prerequisite 186-211B, or 502A). Techniques of structure determination applied to a research problem.
Professor Donnay

186-712D X-RAY CRYSTALLOGRAPHY. (6 hours laboratory; Prerequisite: Geology 186-211A). Techniques of x-ray diffraction applied to a crystallographic research problem.
Professor Donnay

E8 DEPARTMENT OF ELECTRICAL ENGINEERING

McConnell Engineering Building
3480 University Street
Montreal, PQ,
Canada H3A 2A7

STAFF

Professors - E.L. ADLER; P.R. BELANGER *(Chairman);* M.L. BLOSTEIN; C.H. CHAMPNESS; G.W. FARNELL; M.D. LEVINE: N. RUMIN: T.J.F. PAVLASEK; P. SILVESTER; G.L. YIP; G. ZAMES
Associate Professors - P. CAINES; Z. CSENDES; M. FUKADA; F. GALIANA; A.A. GUNDJIAN; J.F. HAYES; B.A. HOWARTH; H.C. LEE; D. LOWTHER; A.S. MALOWANY; B.T. OOI
Assistant Professors - V.K. AGARWAL; P. KABAL; S. ZUCKER
University Lecturer - K.L. FRASER
Associated Staff - D. BENN; J. BOWLES; C.W. BRADLEY; P. BURA; D. CREVIER; M. GAVRILOVIC; B. GEVAY; E. GOODMAN; B. GUERTIN; M. KAPLAN; E. KISAK; S. KUBINA; M.A. MARIN; P. MERMELSTEIN; R. MURPHY; H.L. NAKRA; D. O'SHAUGHNESSY; J.S. OUTERBRIDGE; F.M. REZA; V. STEFANOVIC; A.B. STURTON; A. TURGEON; V. ZAJIC

The main research interests of the department lie in the following areas: communication systems, computer vision and graphics, control, electromagnetics, electronic circuits and systems, electronic devices and materials, power engineering and biomedical engineering. The department has a number of different computer systems, which range in complexity from small minicomputer configurations, for example two Digital Equipment Corporation PDP/8's and three PDP/11's, to a much larger system for time-shared, interactive computation. The large system is centered around a PDP/15/40 and a VAS/11/780, fitted with an assortment of peripheral devices for computer vision and graphics research. Links exist between several of these machines, and also to the AMDAHL V7 in the McGill Computing Centre.

Facilities for research in the microwave area include a microprocessor-based data acquisition and process control system for near-field antenna measurements. Several lasers are available, including a high power TEA CO_2 system. Equipment for the fabrication of solid state devices includes a vacuum system for r-f sputtering and metallization. There are also well equipped laboratories for research in fiber optics and optical communications, rotating machine dynamics and power electronics, microprocessor systems, semiconductor materials and devices, acoustics and high voltage phenomena.

ADMISSION AND REQUIREMENTS

M.Eng. Degree

ADMISSION

Applications for September admission are normally processed in March, with decisions announced in early April. Decisions are normally

made in early November for January admissions.

Candidates who fulfill the general requirements of the Faculty of Graduate Studies and Research and who possess an appropriate first degree may be accepted for a course of study leading to the M.Eng. degree.

REQUIREMENTS

A student may satisfy the requirements for the degree by completing one of the following options:

Option A: A minimum of six appropriate graduate courses, at least four of which are in Electrical Engineering, plus a research project leading to a Master's thesis.

Option B: A minimum of nine appropriate graduate courses, at least six of which are in Electrical Engineering, plus a research or design project leading to an internally-examined report.

The formal residence requirement for the M.Eng. Option A is three terms of full-time study, which may include a summer term. However, students should expect to devote 18 months of full-time work to fulfill the requirements. A part-time program is possible in the case of the B option.

Ph.D. Degree

ADMISSION

Candidates who fulfill the general requirements of the Faculty of Graduate Studies and Research and who possess a Master's degree may be accepted for a course of study leading to the Ph.D. degree in Electrical Engineering.

REQUIREMENTS

Candidates have to pass a major area, oral examination which must be taken no later than 15 months after initial registration in the Ph.D. program. They must also pass a thesis proposal defence before their supervisory committee at an early stage in their thesis research.

The residence requirement is normally three years of full-time study, although candidates with an M.Eng. degree from McGill or from an approved institution elsewhere may be permitted to reduce this to two years.

COURSES FOR HIGHER DEGREES

Not all of these courses are given every year.

304-501A SYSTEMS I: ALGEBRAIC AND STATE-SPACE METHODS. 3(3-0-6). (Prerequisite: 304-303A,B or 304-308A). For students specializing in control, power, and communication systems. Review of linear algebra, geometric approach. Dynamical systems. Quadratic optimal controllers and matched filters, controllability and observability, the Riccati equation, observers, minimal realizations. Applications to problems in control and communication.

304-502A SYSTEMS II: FREQUENCY RESPONSE METHODS IN CONTROL. 3(3-0-6). Prerequisite: 304-303A,B or 304-308A). For students specializing in control and power systems. Steady state behaviour, type numbers and error coefficients, Nyquist's stability criterion, compensation methods, Nichols' charts, causality, Hilbert transforms, gain-phase relations, non-minimum phase elements, stabilizability, sampled systems and z-transforms, the W-plane. Introduction to the Wiener-Hopf method and/or nonlinear systems.

304-503B SYSTEMS III: MULTIVARIABLE AND NONLINEAR SYSTEMS. 3(3-0-6). (Prerequisites: 304-501A and 304-502A). Continuation of Systems I and II. Realization theory, Smith-McMillan form, Lyapunov's method, pole-placement, global distortion theory for multivariable and nonlinear systems, the small-gain theorem, the circle criterion, diagonal dominance, decoupling. Applications to the design of multivariable servos.

304-512A DIGITAL SIGNAL PROCESSING. 3(3-0-6). (Prerequisite: 304-303A,B or 304-308A). Discrete-time linear systems theory, digital filter synthesis techniques, quantization effects in digital filters, discrete Fourier transforms including FFT algorithms, high-speed convolution and correlation techniques.

- **304-513A COMPUTER AIDED CIRCUIT ANALYSIS AND DESIGN. 3(3-0-6).** (Prerequisites: 304-302 or 304-307. Recommended: 304-333 and 308-350). Techniques used for the electrical and logical simulation of electronic circuits. Formulation of network equations. Frequency domain analysis. The dc and transient analysis of nonlinear circuits. Optimization and tolerancing. Timing analysis of digital circuits. Logic simulation. (Alternate years, next given 1982-83).

304-521B DATA COMMUNICATIONS. 3(3-0-6). (Prerequisite: 304-411). Coherent system design for intersymbol interference: signal design (spectral shaping codes), PAM receiver design (matched filtering, equalization, maximum likelihood sequence estimation). Non-coherent systems: differential PSK, FSK Start-Stop Transmission. Phase and timing recovery, scramblers. Error control and automatic repeat request.

304-522A STATISTICAL COMMUNICATION THEORY. 3(3-0-6). (Corequisite: 304-411). General Principles: source and channel descriptions, communications system design as a problem in geometry. Source Digitization: entropy and the rate-distortion trade-off, lossless source codes

(Huffman and run-length codes), sampling, quantization of sampled sources (optimal and adaptive quantization, delta molulation). Channel Coding: optimal coherent receivers, performance evaluation, channel capacity, the incoherent case. Modulation: threshold effect, the reason for non-linear modulation, SNR versus probability of anomaly, PPM and FM. Comparison of digital and analogue systems.

304-523B SPEECH COMMUNICATIONS. 3(3-0-6). (Prerequisite: 304-303A,B or 304-308A). Human speech production: articulatory and acoustic descriptions; models of speech production; speech perception; digital processing of the speech signal; vocoders formant, (linear predictive, cepstral); automatic speech recognition by computer; speech synthesis-by-rule; speaker recognition/verification.

304-524B TELECOMMUNICATION TRANSMISSION SYSTEMS. 3(3-0-6). (Prerequisite: 304-411A. Recommended 304-521B and 304-522A). Transmission Media, Wire, Coax Cable, Radio, Optical Links; Analog Transmission and Multiplexing, Voice Frequency links, Modulation/Multiplexing; Digital Transmission and Multiplexing, Sampling and Quantization, Pulse Transmission, Time Division Multiplexing, Digital Radio/Modulation; Special Topics-Case Studies, Fiber Optics, Satellite Systems, Mobile Radio Systems.

304-528A (Formerly 304-628) COMMUNICATION NETWORKS. 3(3-0-6). (Prerequisite: 304-305A,B). Modeling of Traffic: characteristics of voice, data and visual traffic, message arrival models, holding time distributions; Local Distribution: polling and random access techniques, ring topology, demand and time division multiplexing, queueing models of performance; Multiplexing: FDM, TDM, circuit switching, packet switching, message switching, analysis of blocking and delay; Networks of Queues: network flow models, congestion and flow control, optimal routing, linear programming models.

304-529A IMAGE PROCESSING AND COMMUNICATIONS. 3(3-0-6). (Prerequisites: 304-221A,B 304-303A,B or 304-308A). Picture processing in man and machine, computer vision systems, biological signal sampling and magnitude, neurophysiological and psycho-physical models of vision, edge detection, spatial and frequency domain processing, color image segmentation, organization and aggregation of data, texture shape description.

304-530B DESIGN OF OPERATING SYSTEMS. 3(3-0-6). (Prerequisites: 304-221A,B and 304-424A,B). The purpose of an operating system. Sequential and concurrent processes. Process communication and coordination using synchronizing primitives and the monitor concept. Queueing theory and the design of efficient processor scheduling policies. Virtual memory systems-allocation policies and performance analysis. File and device management. An operating system design project.

304-531B REAL-TIME SYSTEMS. 3(3-3-3). (Prerequisite: 304-222A,B or 304-424A). Real-time engineering applications of computers to on-line control communication systems and data acquisition. This course is concerned with aspects of hardware, software, the hardware-solftware interface and their integration into a completed system. The course requires the completion of individual or group projects using one of the department's mini or micro-computers.

304-532A COMPUTER GRAPHICS. 3(3-3-3). (Prerequisite: 304-424A). Introduction to computer graphics systems and display devices: core or disc refreshed, storage tube, scan conversion systems; graphical input and interactive graphical techniques - light pen, joystick, Rand tablet; display files: graphics languages and data structures; 2D transformations; 3D computer graphics, hidden line removal and shading; graphics system design; applications. The course will consist of lecture material as well as a project involving the preparation and running of graphics programs on the PDP-1 and associated graphics hardware.

304-543B NUMERICAL METHODS IN ELECTRO-MAGNETICS. 3(3-0-6). (Prerequisite: 304-351A,B or 304-356A). Mathematical representation of fields. Discrete approximations for continuous differential and integral operators. Methods for solving deterministic and eigenvalue problems by direct and iterative means.

304-545A MICROELECTRONICS TECHNOLOGY. 3(3-0-6). (Prerequisites: 304-333, recommended 304-337 or 304-332). Alloyed contacts, diffusion techniques, diffusion theory, four point probe, epitaxial growth, silicon dioxide formation, photolithography, window opening, selected metallization, diode and transistor fabrication, junction depth determination, ion implantation, junction capacitance for general profile, fabrication of monolithic integrated circuits, isolation, junction capacitors, diffused resistors, mask making, device mounting, thin film passive components, thick film components, integrated circuit layout, MOS gate voltage, MOS integrated circuits.

304-560B POWER SYSTEM ANALYSIS II. 3(3-0-6). (Prerequisite: 304-361A,B. Recommended corequisite: 304-464A). Three phase power systems. Symmetrical component analysis. Shunt and series faults. Calculation of sequence impedances of transmission lines for arbitrary configurations. Sequence networks for transformers, machines and systems. Transient stability analysis. Fault analysis of general systems via computer methods.

304-561A ELECTRIC MACHINE DESIGN. 3(3-0-6). (Prerequisite: 304-361A,B). The output equations of electromagnetic apparatus. Specific electric and magnetic loading. Magnetic circuits. Time constants and power gain. Windings including pole amplitude modulation. Leakage inductances. Commutation interpoles and compensation. Per unit values. (Alternate years, next given 83/84).

304-562A CONTINUUM ELECTROMECHANICS. 3(3-0-6). (Prerequisite: 304-351A,B or 304-356A). Quasi-static electromagnetic field equations. Field transformation in moving co-ordinate systems. Boundary conditions and constitutive relations for moving media. Magnetic diffusion and charge relaxation in moving media. Maxwell's stress tensor for the evaluation of force densities. Electromechanics of elastic solids and Newtonian fluids. Application of theories to magneto-hydrodynamics, electro-hydrodynamics, magnetic pumps, linear induction motor and magnetic levitation. (Alternate years, next given 82/83).

304-564B CONTROL RECTIFIER CIRCUITS. 3(3-0-6). (Prerequisite: 304-333A,B or 304-338B). Simple polyphase rectifiers. Thyristor characteristics. Fully and semi-controlled bridges. Interphase transformers. Commutation, regulation and equivalent circuits. Harmonic content. Active loads. Cycloconverters. (Alternate years, next given 83/84).

304-565B INVERTERS AND CHOPPER CIRCUITS. 3(3-0-6). (Prerequisite: 304-333A,B). Properties of circuits employing the forced commutation of thyristors to perform a switching function. Static and dynamic properties of thyristors and diodes. Constant voltage and constant current inverters, three phase inverters. Choppers. Motor loads. (Alternate years, next given 82/83).

304-572A LASER ELECTRONICS. 3(3-0-6). (Prerequisites: 198-271B). Review of quantum mechanical and statistical mechanical concepts and techniques. Principle of amplification by stimulated emission of radiation; analysis of resonant cavity and travelling wave maser amplifiers; coherence, stability and noise; characteristics of gaseous, solid state and semiconductor junction lasers. Nonlinear effects for modulation and detection of laser beams; applications to communication, measurements, signal processing and other fields as time permits.

304-573B MICROWAVE ELECTRONICS. 3(3-0-6). (Prerequisites: 304-352 (or 304-357B) and 304-332B (or 304-337B)). The course is designed to familiarize the student with modern microwave devices and circuits, and to introduce them to circuit design procedures. The Varactor diode: parametric amplifiers, frequency multipliers and upconverters. The Schottky diode: mixer operation and design. Transferred electron (Gunn) oscillators. Impatt and trapatt diode amplifiers. Microwave bipolar and field-effect transistors: models and s-parameters; noise characteristics; low noise, broad-band and power amplifiers. (Alternate years, next given 1982/83).

- **304-575B OPTICAL AND MAGNETIC PROPERTIES OF SOLIDS. 3(3-0-6).** (Prerequisites: 304-352B or 304-357B, 304-332B). Classical and quantum theories of polarization. Band theory of solids. Dispersion relations. Tensor description of anisotropic materials. The ray ellipsoid. Double refractions, birefringence dichroism, piezoelectricity, ferroelectricity. Classifical and quantum theories of magnetization. Magnetic domains. Ferrites and Garnets. Non-reciprocal microwave devices and magneto-optic devices. (Alternate years, next given 82/83).

304-592A MICROWAVE THEORY AND TECHNIQUES. 3(3-0-6). (Prerequisite: 304-352B or 304-357B). Transmission lines and waveguides, surface waveguides, microwave circuit theory, impedance matching and transformation, passive microwave devices, resonators, periodic structures and filters, microwave antennas.

304-593B ANTENNAS AND PROPAGATION. 3(3-0-6). (Prerequisite: 304-352B or 304-357B). Near and far field behaviour of radiators; antennas as a boundary value problem; practical antenna parameters; wire antennas, antenna arrays, aperture methods of antenna analysis; measurement of input impedance, field patterns, gain and noise; point-to-point propagation, fading beyond horizon and long distance propagation, ionospheric, atmospheric and earth's surface considerations; tropospheric scatter.

304-596B OPTICAL WAVEGUIDES. 3(3-0-6). (Prerequisite: 304-352B or 304-357B). Introduction to wave optics. Diffraction theory and geometrical optics including the Kirchoff-Huygens diffraction integral and Fermat's principle. Introduction to optical Fourier transform and spatial filtering. Gaussian beams. Propagation characteristics of optical fibres and dielectric waveguides. Thin film (or slab) optical waveguides. Discussion of optical communication systems.

304-602A OPTIMIZATION METHODS. 4(3-0-9). (Prerequisite: 304-501A or 304-502A). Geometry of convex bodies in linear spaces and their tangent hyperplanes. Causality and pseudoinverses in a resolution space setting. Applications to optimal signal design in communication channels.

304-603B DETECTION, ESTIMATION AND STOCHASTIC CONTROL. 4(3-0-9). (Prerequisite: 304-612A or 304-522A). Detection, Bayesian and Neyman-Pearson; Bayesian, MAP and maximum likelihood estimates; linear regression; innovations, the Kalman-Bucy filter and its properties; optimal and suboptimal nonlinear filters; optimal

stochastic control with perfect and imperfect information, the certainty equivalence principle; closed-loop feedback strategies; Wiener approach to minimum variance control.

304-605B NONLINEAR AND LARGE SYSTEMS. 4(3-0-9). (Prerequisite: 304-501A or 304-502A). Operator methods for nonlinear causal operators. The contraction mapping principle and small-gain theorem. Linearization of weakly non-linear systems. Circle criteria for stability. Hierarchical organization of weakly coupled systems. Periodic and subharmonic solutions. Monotonicity, positivity, and applications to stability theory of the Popov type. (Subject to enrolment).

304-606B ADVANCED TOPICS IN CONTROL. 4(3-0-9). (Prerequisite: 304-503B). Topics selected from current research in large systems theory, adaptive control, stability and algebraic methods.

304-612A RANDOM PROCESSES. 4(3-0-9). (Prerequisite: 304-305B or 189-384B). Markov processes, Markov chains, correlation functions and spectra, renewal processes, queues, queuing networks.

- **304-613B COMPUTER-AIDED DESIGN AND SIMULATION OF ELECTRONIC CIRCUITS. 4(3-0-9).** (Prerequisite: 304-513A). Frequency domain sensitivity analysis: circuit optimization. Tolerance assignment, design centering and tuning. Modelling at the gate, register transfer and functional levels for timing simulation. Logic and timing simulators. Large digital circuit simulation: network partitioning and latency exploitation. (Alternate years, next given 83/84).
- **304-614A NETWORK SYNTHESIS. 4(3-0-9).** (Prerequisite: 304-303A,B or 304-308A). Properties of positive real functions; determination of system functions; synthesis of driving-point functions; syntheses of lossless two-port and RC two-ports; approximation problems; systhesis of active networks. (Alternate years, next given 82/83).

304-620B INFORMATION THEORY AND CODING. 4(3-0-9). (Prerequisite: 304-305A,B or 189-384B). Measure of information, limitations of measure, characterization of noisy channels, channel coding and capacity. Estimates for some real channels, source coding revisited (rate distortion), error coding techniques - real and imaginary, feedback and automatic repeat request channels. This course is intended to give the student an insight into the concepts and limitations of Information Theory along with a survey of current practice in error-correcting coding.

304-622B ADVANCED COMMUNICATIONS SYSTEMS ANALYSIS. 4(3-0-9). (Prerequisite: 304-522B). This course will allow the student to study the foundations required for modelling advanced communication systems. Analysis of specific classes of systems such as telephone, satellite, troposcatter, microwave for both analog and digital data.

304-625B ARTIFICIAL INTELLIGENCE. 4(3-0-9). Intended for students from all disciplines with strong programming backgrounds. Philosophy of artificial intelligence, AI programs and languages, representations and descriptions, exploiting constraints, rule-based systems, speech understanding systems, medical diagnosis systems, expert knowledge systems, human problem solving, computational linguistics and natural understanding, robot planning. Term project.

304-626B COMPUTER VISION. 4(3-0-9). (Prerequisites: 304-529). An advanced course on the computational modeling of visual information processing. Emphasis on human perception and on the mathematical analysis of vision algorithms. Computational and psychophysical projects.

304-627B FAULT-TOLERANT COMPUTING 4(3-0-9). Physical failure vs. logical fault model. Detection and location of faults in circuits. Self-checking circuits. Built-in-testing for very large scale integration chips. Design for easy testability. A mathematical model of system diagnosis. Reliability by redundancy. Software testing and verification. Fault-tolerant software. Description of available fault-tolerant systems like ESS No. 1A and PLURIBUS.

304-630A MULTIPROCESSOR AND PARALLEL PROCESSING. 4(3-0-9). Motivation for Multiprocessor and parallel processing systems. Systems hardware: crossbar switch, multiport memory, pipeline systems, array and processor organizations, and interconnection paths, operating system and software: resource allocation and management, processor intercommunication, I/O load balancing, and system deadlock. Description of existing parallel systems such as STARAN, ILLIAC IV and CMMP.

304-636B REAL-TIME OPERATING SYSTEM DESIGN. 4(3-0-9). (Prerequisite: 304-531A). This course is intended for students interested in real-time applications of small computers. The course includes a study of three existing real-time operating systems as well as a design project. The course content includes the following: task scheduling mechanisms, I/O organization, bulk storage organization, incorporation of service routines. Inter-computer communication, task coordination, multiple computer operating systems.

304-637B COMPUTER SYSTEMS ANALYSIS. 4(3-0-9). (Prerequisite: 304-531B). Computer system specification, hardware-software trade-offs, selection of hardware components, problem solutions using interconnected computers, choice of programming languages, structured programming, technical organization and

management. The course includes three case studies and a design project.

304-638A ADVANCED COMPUTER DESIGN. 4(3-0-9). (Prerequisite: 304-531A). This course is intended for graduate students with a good knowledge of computer organization, structure and architecture and some knowledge of micro-programming. Topics in hardware technology include functional logic building blocks, arithmetic and non-arithmetic processors, memory utilization and storage management, sequencing subsystems, transmission and exchange. Determination of expected performance by simulation; computer-aided design. Specific examples of solutions to computer design problems. Selected topics on novel computer organizations such as array, cellular and variable-structure computers. (Alternate years, next given 82/83).

304-641A APPLIED ELECTROMAGNETIC THEORY. 4(3-0-9). (Prerequisite: 304-592A or 304-593B). Mathematical techniques, analytical and numerical, for solving E.M. boundary value problems. Maxwell's equations, wave dispersion waves in gyrotropic media, Huygen's principle; Green's functions and integral equations, angular spectrum of plane waves, cylindrical and spherical wave functions, pertubational and variational techniques. Waveguide, antenna, scattering and diffraction problems. (Alternate years, next given 82/83).

304-647A FINITE ELEMENTS IN ELECTROMAGNETICS. 4(3-0-9) (Prerequisite: 304-543B). Finite elements for the Helmholtz equation in the plane and in space. Elements for axisymmetric problems. Isoparametric and curvilinear elements; elements for nonlinear problems. Integral equations and the solution of antenna problems. Finite elements in parabolic problems.

304-662A ELECTRIC MACHINE DYNAMICS. 4(3-0-9). (Prerequisites: 304-361A,B 304-502A). Review of electric machine models. State-space formulation of nonlinear differential equations. Solutions through numerical integration, constant speed linearization. Models of control elements, loads, prime-movers, voltage regulators, transmission networks. State equations of integrated power system. Modal analysis of multimachine power system. Operating point stability. Transient stability analysis. Electromechanical resonance.

304-663X HVAC POWER TRANSMISSION. 4(3-0-9). Design considerations of EHV and UHV power transmission systems: audible noise, radio interference, environmental aspects of transmission lines. Coordination of system overvoltages with external and internal insulation strengths leading to economic insulation structures based on quantitative evaluation of reliability.

304-664Y HVDC POWER TRANSMISSION. 4(3-0-9). Principles of HVDC power transmission: HVDC transmission circuits, bridge convertor operation, thyristor valve developments, control of HVDC systems, protection of lines and convertor stations, harmonic filtering, modelling techniques for performance studies.

304-665X SUBSTATION APPARATUS. 4(3-0-9). Description and analysis of major apparatus used in modern power systems: circuit breakers, switches, bushings. Electrical connection of substations; principles of equipment selection based on stresses, reliability and economic requirements. Substation protection. Physical arrangement of substations.

304-666Y POWER SYSTEM OPERATION. 4(3-0-9). Power system optimality criteria: economic, environmental, reliability factors. Short and long-term load forecasting; simulation of river flows; economic operations of hydroelectric thermal and hydrosteam systems. Planning of additional equipment by the global and marginal approaches. Siting of new plants. Planning of interconnections; maintenance scheduling.

304-667Y MODERN TECHNIQUES FOR POWER SYSTEM ANALYSIS. 4(3-0-9). Mathematical descriptions of power systems suitable for computer analysis, and solution algorithms. Matrix algebra, Incidence and network matrices, sparse matrix techniques, phase and component representation, short circuit studies, load flow studies, transient and dynamic stability studies, contingency analysis, state estimation, system identification.

304-677A,B EXPERIMENTAL TECHNIQUES IN SOLID STATE. 4(0-6-6). (Prerequisite: 304-332B or 304-337B). Experimental project in solid state involving the following: techniques of preparation fabrication and orientation of samples and structures for experimental study; use of special laboratory apparatus; measurement of electronic, optical and structural properties of samples and structures; evaluation of electronic behaviour and performance; interpretation of relevant physical processes and phenomena.

304-678A SPECIAL TOPICS IN SOLIDS I. 4(3-0-9). (Prerequisite: 304-332B or 304-337B). Discussion of topics in semiconductor electronics and electronic properties of materials in areas of current research to the department.

304-679B SPECIAL TOPICS IN SOLIDS II. 4(3-0-9). (Prerequisite: 304-332B or 304-337B). Dielectric properties and molecular structure of solids and liquids. Dielectric theory and applications.

304-681A,B COLLOQUIUM IN ELECTRICAL ENGINEERING. (4 credits). Directed reading, seminar and discussion course in various subjects of crrent interest in electrical engineering research.

304-685B HIGH VOLTAGE ENGINEERING 4(3-0-9). (Prerequisite: 304-351A,B or 304-356A). Electrical discharges in gases; uniform and non-uniform fields; corona discharges; the spark mechanism. Generation and measurement of high direct, alternating and impulse voltages. (Alternate years, next given 81/82).

304-688A,B RECENT ADVANCES IN ELECTRICAL ENGINEERING. 4(3-0-9). Course content suited to the area of specialization of the lecturer.

304-699A,B RESEARCH PROJECT. 12(0-36-0).

E9 DEPARTMENT OF GEOGRAPHY

Burnside Hall
805 Sherbrooke Street West
Montreal, PQ,
Canada H3A 2K6

STAFF

Professors - J.B. BIRD *(Chairman);* M.A. CARSON; T.L. HILLS; J.T. PARRY
Associate Professors - W.R. ARMSTRONG; R.N. DRUMMOND; G.O. EWING: J.E.LEWIS; J. LUNDGREN; T.R. MOORE: L. MULLER-WILLE; S.H. OLSON
Assistant Professors - J.H. BRADBURY: N. ENRIGHT; T. MEREDITH
Auxiliary Professor: - W.B. KEMP

ADMISSION

M.A. and M.Sc. Degrees

Attention is directed to the Faculty of Graduate Studies admission regulations outlined in the General Information and Faculty Regulations section headed "Admission".

Applicants not satisfying these conditions, but with primary undergraduate specialization in a cognate field, may register for the M.A. or M.Sc. degree in Geography in certain circumstances. In general, they will be required to register for a qualifying year, as will all others who have deficiencies in their preparation but are otherwise judged to be qualified.

Ph.D. Degree

Students who have attained high standing in the Master's degree in Geography may be permitted to proceed to the Ph.D. in two further years. Rarely a student may be allowed to register for the Ph.D. degree without having first taken the Master's degree. The normal duration of a program, including field work where required, is three years. Normally, the Department will restrict admission to the Ph.D. program to students prepared to work in one of the fields of human or physical geography in which specialized supervision is offered. These, which cover a wide range of systematic areas, are listed in documents available from the Department.

REQUIREMENTS

Graduate Diploma in Environmental Remote Sensing

Applicants for the Diploma in Environmental Remote Sensing should hold a B.A. or B.Sc. degree with a major in one of the disciplines fundamental to the study of remote sensing. Inquiries are invited from students with such Bachelor's degrees as Geography, Geology, Ecology, Planning, etc.

Candidates must:

1. Pass in Geography 183-535A,B; Geography 183-633A,B or Geology 186-535D; a graduate half course in quantitative methods, data analysis or image processing and one other approved graduate half course.
2. Complete a project report on an approved topic.
3. Complete the program within 12 months of admission.

M.A. and M.Sc. Degrees

Candidates must:

1. Pass in the equivalent of five graduate half courses, selected according to guidelines of the Department. Senior undergraduate courses in other departments may be substituted for some of this requirement, with the permission of the Department of Geography.
2. Attend such additional courses as the Chairman and the student's director of research think fit.
3. Submit a thesis in an appropriate area of geographical inquiry. The quality of the thesis will determine the final standing of the student.

Ph.D. Degree

Candidates must:

1. Attend such courses as the Chairman and the student's supervisory committee think fit, and comply with a language requirement if this is recommended by that committee.

2. Pass a comprehensive examination, the form of which is detailed in a document available from the Department.
3. Submit a thesis based on original research in an appropriate area of geographical inquiry.

The quality of the thesis will determine the final standing of the student.

COURSES AND SEMINARS FOR HIGHER DEGREES

All courses meet once each week.
Contact Graduate Affairs Office, Department of Geography, in late August for details of course contents and for term in which each course will be offered.

183-523B ADVANCED CLIMATOLOGY
Professor Lewis

183-535A,B INTERPRETATION METHODS: AIR PHOTOS AND IMAGERY. (Not available to students, excepting diploma candidates, registered in Geography 183-633A,B). Basic photogrammetry and interpretation procedures for aircraft and spacecraft photography and imagery.
Professor Parry

183-602A,B URBAN GEOGRAPHY: SELECTED TOPICS. Social and historical aspects of the urban environment.
Professor Olson

183-603A,B URBAN GEOGRAPHY: SELECTED TOPICS. Spatial interaction, distance/cost perception, modal choice, urban travel demand modelling.
Professor Ewing

183-604A,B ECONOMIC GEOGRAPHY: SELECTED TOPICS. Geographical aspects of Canadian development and industrialization.
Professor Lundgren

183-605A,B ECONOMIC GEOGRAPHY: SELECTED TOPICS. Geographical aspects of Canadian development and industrialization.
Professor Bradbury

183-606A GEOGRAPHY AND DEVELOPMENT: SELECTED TOPICS. Historical roots of uneven development in metropolitan and peripheral societies.
Professor Armstrong/Staff

183-607B GEOGRAPHY AND DEVELOPMENT: SELECTED TOPICS. Problems of contemporary uneven development: mechanisms of underdevelopment and peripheral responses.
Professor Armstrong/Staff

183-608A,B CULTURAL GEOGRAPHY: SELECTED TOPICS. Cultural ecology with particular reference to changing peasant/plantation relations; space needs of native peoples in relation to land claims.
Professors Hills and Lundgren

183-609A,B HUMAN GEOGRAPHY. Analysis of social and behavioural problems in human geography.
Staff

183-610A,B SOCIAL GEOGRAPHY: SELECTED TOPICS. Man's relation to natural, socio-economic and political environments.
Professor Müller-Wille/Staff

183-612A,B ADVANCED PHYSIOGRAPHY. An analysis of recent advances in geomorphology.
Professors Bird and Carson

183-613A,B ADVANCED BIOGEOGRAPHY. An examination of the history, methods and objectives of biogeography, with emphasis on plants.
Professor Enright

183-614A,B SOILS AND WEATHERING. An examination of the major processes operating in soils: weathering reactions, pedogenetic processes, and soil nutrient relationships.
Professor Moore

183-615A,B HYDROLOGY AND WATER RESOURCES. An analysis of recent developments in hydrology, with emphasis on their applications to geographical problems.
Staff

183-622A,B HUMID TROPICAL ENVIRONMENTS. Man's role in the tropical landscape.
Professor Hills/Staff

183-623A SEMINAR ON REGIONAL RESEARCH: A SELECTED REGION. Distinct approaches to geographic research in selected study regions.
Staff (according to regional interest)

183-624B SEMINAR ON REGIONAL RESEARCH: A SELECTED REGION. Distinct approaches to geographic research in selected study regions.
Staff (according to regional interest)

183-631D METHODS OF GEOGRAPHICAL RESEARCH. General research seminar in human and physical geography.
Staff

183-632A,B ADVANCED CARTOGRAPHY. An examination of modern geographic-cartographic techniques for the presentation and reproduction of thematic data. Laboratory and field work are required.
Professor Drummond

183-633A,B REMOTE SENSING. (Not available to students, excepting diploma candidates, registered in Geography 183-535A,B). A review of aircraft and spacecraft remote sensing systems and their applications.
Professor Parry

183-634A,B QUANTITATIVE METHODS IN GEOGRAPHY. An examination of certain techniques in geographic research and their limitations. Emphasis is directed to the use of correlation and regression analysis, and to multivariate extensions of these techniques.
Professors Carson and Enright

McGILL SUBARCTIC RESEARCH STATION

This field research station is at Schefferville, Québec, in the centre of Labrador-Ungava. Facilities exist for research in most areas of physical and some areas of human geography in the subarctic. For details contact the Chairman, Department of Geography. The station is operated by the McGill Centre for Northern Studies and Research. Other northern research facilities and courses are also offered by the Centre.

E10 DEPARTMENT OF GEOLOGICAL SCIENCES

Frank Dawson Adams Building
3450 University Street
Montreal, PQ
Canada H3A 2A7

STAFF

Professors - R. DOIG; GABRIELLE DONNAY; J.A. ELSON; R. HESSE; E.W. MOUNTJOY: V.A. SAULL; C.W. STEARN *(Chairman)*
Associate Professors - P.R. EAKINS; D. FRANCIS; R.H. GRICE; A.J. HYNES; W.H. MacLEAN; R.F. MARTIN; G.R. WEBBER
Assistant Professor - A.E. WILLIAMS-JONES
Research Associate - J.D.H. DONNAY
Faculty Lecturer - T. AHMEDALI
With the assistance of - R.N. YONG and J.C. OSLER *(Civil Engineering and Applied Mechanics);* O.G. JENSEN; M. BILODEAU; W.M. TELFORD and J.E. UDD *(Mining Engineering and Applied Geophysics);* B. d'ANGLEJAN *(Marine Sciences);* R.L. CARROLL *(Redpath Museum)*

Opportunities for advanced study and research in Geology, Geochemistry and Geophysics are available to qualified students. Graduate programs leading to the M.Sc., M.Sc. (Applied), and Ph.D. degrees and to a diploma are offered.

Financial assistance is available in the form of demonstratorships, research assistantships and some scholarships.

ADMISSION AND REQUIREMENTS

Candidates are to indicate their field, or fields, of interest when making formal applications for admission. Specific inquiries concerning the department should be addressed to Graduate Admissions, Department of Geological Sciences, McGill University, 3450 University Street, Montreal, PQ, H3A 2A7.

Applications and all supporting documents should be received in the department before July 1st for admission the following September. Applicants requiring financial assistance should apply as early as possible. There are no special forms required to apply for financial aid from the department as all applicants will be considered for the awards for which they are eligible.

Eligibility

Applicants should have an academic background equivalent to that of a McGill graduate in the honours or the major in geology program. The admissions committee may modify the requirements in keeping with the field of graduate study proposed. In some cases a qualifying year may be required.

M.Sc. Degree

The M.Sc. degree program includes (a) three courses to be chosen with the approval of the research director and Director of Graduate Studies and (b) a thesis to be submitted according to the rules of the faculty.

Ph.D. Degree

The Ph.D. degree program includes (a) an approved program of courses to be selected in consultation with the student's director of research according to the student's particular interest and training (b) Comprehensive oral examinations at the end of the Ph.D. II year (c) Research and Ph.D. thesis followed by an oral examination. There are no language requirements for the Ph.D. degree.

Diploma

a) Applicants for the diploma must fulfil the requirements for entry into the Faculty of Graduate Studies and Research of McGill University and for graduate study in the Department of Geological Sciences, as stated in the Announcement.
b) The diploma will be awarded for the successful completion of one academic year of graduate studies comprising at least 3 graduate courses to be chosen with the approval of the Department and other study or research under the direction of a staff member if the number of full courses taken is less than five.

c) Students who are awarded the diploma with high standing may be allowed to proceed to a higher degree and will be given appropriate credit towards such a degree. Students wishing to keep open the possibility of entering either the M.Sc. program with thesis or the M.Sc., Applied program are advised to follow a program which will satisfy the first year requirements for these programs.

M.Sc., Applied Degree

Two options are offered in the two-year non-thesis program for the M.Sc., Applied degree: A - Mineral Exploration and B - Engineering Geology.

Option A - Mineral Exploration

The general aim of this two-year program is to train students to be capable of planning and carrying out effective exploration for mineral deposits, and of evaluating mineral deposits in various stages of development and production. Such students must be provided with:

1. a sound theoretical and practical background in the use of modern techniques of exploration,
2. additional information on the economic and technical considerations which distinguish ore bodies from other mineral deposits,
3. some insight into the legal and financial aspects of mineral exploration.

Applicants must have fulfilled similar requirements to those for graduation in either (a) the McGill B.Sc. Honours or Major program in Geological Sciences or its equivalent, or (b) the McGill B.Eng. program in Mining, or its equivalent. They should have taken the following courses or their equivalents, but these may be taken as electives in the regular program.
GEOLOGY 186-441D MINERAL DEPOSITS.
COMPUTER SCIENCE 308-200A.

If the total number of deficiencies is too great the student may have to take a "Qualifying year".

To provide a sound background to the problems of Mineral Exploration and allow a degree of specialization the curriculum consists of:

a) 17 semester courses (or the equivalent) of core or essential courses;
b) 5 semester courses (or the equivalent) of optional courses approved by the director of the program.

Students are required to work in the mineral exploration industry during the summer session between their two years of residence.

Applicants who have been working in industry for one or more years after graduation should provide one reference from industry and one from a former professor. Applicants coming directly from an undergraduate program must provide the normal (2) references from former professors.

Essential Courses

GEOLOGY 186-535A PHOTOGEOLOGY I
GEOLOGY 186-536B PHOTOGEOLOGY II
GEOLOGY 186-604D ORE PETROLOGY
GEOLOGY 186-605D MINERAL EXPLORATION & MINING GEOLOGY
*GEOLOGY 186-606D APPLIED GEOCHEMISTRY
*GEOLOGY 186-613B REGIONAL STRUCTURAL ANALYSIS
*GEOLOGY 186-713D ADVANCED ECONOMIC GEOLOGY
*MINING 300-310A ENGINEERING ECONOMY
*MINING 306-326B MATHEMATICAL APPLICATIONS TO THE MINING INDUSTRY
MINING 306-420A MINING FEASABILITY STUDIES
*MINING 306-423A MINERAL INDUSTRY ECONOMICS I
*MINING 306-531A ADVANCED EXPLORATION GEOPHYSICS I
*MINING 306-533B ADVANCED EXPLORATION GEOPHYSICS II

*Courses to be taken in the first year of the program.

Mining Engineering graduates will be accepted but in the above program will substitute courses required for the Honours Geology degree for the engineering subjects they have already completed.

Recommended Options

GEOLOGY 186-430B GEOLOGY OF ENERGY SOURCES
GEOLOGY 186-540A PHANEROZOIC GEOLOGY OF NORTH AMERICA
GEOLOGY 186-541B PRECAMBRIAN GEOLOGY
GEOLOGY 186-603A ENGINEERING GEOLOGY
GEOLOGY 186-609B GROUNDWATER GEOLOGY
GEOLOGY 186-612A APPLIED STRUCTURAL GEOLOGY
GEOLOGY 186-710A GEOTECTONICS
GEOLOGY 186-716D ECONOMIC GEOLOGY LABORATORY
GEOLOGY 186-344A ORE MINERALS
GEOLOGY 186-725A or 186-726B INDEPENDENT STUDIES IN GEOLOGICAL SCIENCES
MINING 306-216B MINING ENGINEERING TECHNIQUES
MINING 306-424B MINERAL INDUSTRY ECONOMICS II
MINING 306-341A MINERAL SEPARATION
MINING 306-421B MINING FEASIBILITY STUDIES II
MINING 306-522A GEOSTATISTICAL MINERAL RESERVE ASSESSMENT

MINING 306-536B ADVANCED EXPLORATION GEOPHYSICS IV
MINING 306-625D MINERAL INDUSTRY ECONOMICS

Candidates obtaining this degree with distinction may be accepted as candidates for the Ph.D. degree.

Candidates wishing to apply for Professional Engineer (P.Eng.) status must take 3 or more specified one-term courses in engineering. Some of these may be taken as electives.

Option B - Engineering Geology

The purpose of the two-year non-thesis graduate program in engineering geology is to enable geologists and engineers to develop an ability to apply knowledge of geological factors to the design, construction and maintenance of engineering structures. Candidates with a high standard of performance in the first year may transfer to the M.Sc. thesis program.

During the first year of the two-year course, geology graduates and engineering graduates will follow different programs to broaden their basic knowledge and to bring both groups to a comparable level. Programs of a minimum of ten semester-courses will be selected by the department according to the candidate's background and interest from the courses listed below. Appropriate substitutions may be approved. In the second year, the program will consist of eight prescribed semester-courses, as set forth in the following list of courses.

Honours Geological Sciences Graduates - First Year

GEOLOGY 186-603A ENGINEERING GEOLOGY
GEOLOGY 186-609B GROUND WATER GEOLOGY
GEOLOGY 186-535A and -536B PHOTOGEOLOGY
GEOLOGY 186-706D ADVANCED SEDIMENTOLOGY
GEOLOGY 186-614A and -615B GEOMORPHOLOGY
GEOLOGY 186-714A GLACIAL GEOLOGY
GEOLOGY 186-715A INSTRUMENTAL ANALYSIS
GEOLOGY 186-721D RECENT SEDIMENTS AND MARINE GEOLOGY
GEOLOGY 186-724B QUATERNARY GEOLOGY
MATHEMATICS 189-314A and 189-315B ADVANCED CALCULUS AND DIFFERENTIAL EQUATIONS
ECONOMICS 150-204B MICROECONOMICS ANALYSIS AND APPLICATIONS
ENGINEERING 303-312B SOIL MECHANICS
ENGINEERING 303-230A ENVIRONMENTAL ASPECTS OF TECHNOLOGY
ENGINEERING 303-319B TRANSPORTATION ENGINEERING
ENGINEERING 303-384A SOIL MECHANICS AND FOUNDATIONS
COMPUTER SCIENCE 308-200A or B INTRODUCTION TO DIGITAL COMPUTERS
ENGINEERING 306-230B GEOPHYSICAL EXPLORATION
ENGINEERING 306-321B BEHAVIOUR OF ROCK STRUCTURES
ENGINEERING 306-422A APPLIED EXPLOSIVES

ENGINEERING GRADUATES - FIRST YEAR

Basic geology courses as necessary
GEOLOGY 186-603A ENGINEERING GEOLOGY
GEOLOGY 186-609B GROUND WATER GEOLOGY
ENGINEERING 303-312B SOIL MECHANICS
ENGINEERING 303-656A SYSTEMS ANALYSIS IN ENGINEERING
ENGINEERING 303-680A FUNDAMENTALS OF SOIL BEHAVIOUR
ENGINEERING 303-681B ENGINEERING ASPECTS OF SOIL BEHAVIOUR
ENGINEERING 303-682A APPLIED SOIL MECHANICS
ENGINEERING 303-683B ADVANCED FOUNDATION DESIGN
ENGINEERING 303-684A GROUND WATER AND SEEPAGE
ENGINEERING 303-685B DRAINAGE ENGINEERING
ENGINEERING 303-688A SOIL DYNAMICS
ENGINEERING 306-321B BEHAVIOUR OF ROCK STRUCTURES
ENGINEERING 306-520A STABILITY OF ROCK SLOPES
ENGINEERING 306-521B STABILITY OF UNDERGROUND OPENINGS
ENGINEERING 306-623D GROUND CONTROL AND FRAGMENTATION
ENGINEERING 306-331A ADVANCED EXPLORATION GEOPHYSICS I
ENGINEERING 306-433B ADVANCED EXPLORATION GEOPHYSICS II
ENGINEERING 306-630D INTERPRETATIVE METHODS IN APPLIED GEOPHYSICS

SUMMER VACATION PROJECT

All candidates will work for at least two months on an approved engineering geology project. A report of this work will be required as part of the Geology 186-722D course in the second year program.

Common Second Year

GEOLOGY 186-722D ADVANCED ENGINEERING GEOLOGY
SIX SEMESTER COURSES OF GEOLOGY, SOIL OR ROCK MECHANICS OR OTHER APPROVED COURSES

GRADUATE COURSES

186-501A CRYSTAL CHEMISTRY. (2 hours lectures, 1 hour seminar. Prerequisite: Geology 186-211B). Discussion of crystal structures of important mineral groups, especially oxides, sulphides and silicates. Solid solution. Relation of structure to morphology and to chemical and physical properties of crystalline matter.
Professor Donnay

186-502A CRYSTAL-STRUCTURE ANALYSIS. (2 lectures; 1 laboratory). Elements of crystallography and diffraction physics basic to structure determination. Choice of crystal, principles underlying photographic and counter methods of collecting intensity data. Data reduction. F^2synthesis. The phase problem. Trial and error methods, heavy-atom techniques, direct methods. Electron-density calculation. Refinement of structure.
Professor Donnay

186-503D CRYSTAL-STRUCTURE DETERMINATION. (6 hours laboratory; Prerequisite 186-211B, or 502A or B). Techniques of structure determination applied to a research problem.
Professor Donnay

186-519A ISOTOPE GEOLOGY. (3 hours lectures; Prerequisites: U2 core program). Geochronology, the fractionation of the stable isotopes, and applications to petrology and mineral deposits.
Professor Doig

186-534D ADVANCED INVERTEBRATE PALEONTOLOGY. (2 hours lectures, 1 hour seminar). Bias of fossil record; relationship of the phyla; taxonomy, classification, paleoecology, functional morphology and evolution of fossil invertebrates.
Professor Stearn

186-535A PHOTOGEOLOGY I. (1 lecture, 3 hours tutorial, assignments. Prerequisites: 186-242A, and permission of the instructor). Identification of surficial deposits and bedrock lithology by the interpretation of vertical air photographs.
Professor Elson

186-536B PHOTOGEOLOGY II. (1 lecture, 3 hours laboratory and tutorial, assigned projects. Prerequisites: 186-535A or permission of the instructor). Recognition of geological materials, continued; simple photogrammetry; problems in stratigraphy, structure and plotting of geological use of planimetric maps; satellite and radar imagery.
Professor Elson

186-540A PHANEROZOIC GEOLOGY OF NORTH AMERICA. Systematic consideration of the geology of the Cordilleran, Appalachian, and Arctic provinces of North America with emphasis on structure, stratigraphy, crustal evolution and resources.
Professor Mountjoy and Staff

186-541B PRECAMBRIAN GEOLOGY. (3 lectures). A systematic outline of the geology of the Canadian Shield, with additional emphasis on its tectonic evolution and the distribution of ore deposits.
Professors Doig, Hynes, Mountjoy

186-603A ENGINEERING GEOLOGY. (2 hours lecture, 2 hours laboratory). Introduction to the application of geology in Civil Engineering.
Professor Grice

- **186-604D ORE PETROLOGY.** (2 hours lecture or seminar). Application of petrological tools and principles to the genesis of selected ore types.
Professor Williams-Jones

186-605D MINERAL EXPLORATION AND MINING GEOLOGY. (2 hours lectures, 2 hours laboratory and assigned problems). Methods of searching for mineral deposits; modern exploration programs; development of mineral deposits; evaluation of mineral deposits.
Professor Eakins

186-606D APPLIED GEOCHEMISTRY. (3 hours seminar). Principles governing the distribution of elements, particularly in the secondary stage of the geochemical cycle; the use of geochemistry in mineral exploration. Individual projects in applied geochemistry.
Professor Webber

186-609A GROUND WATER GEOLOGY. (2 hours lectures or seminar; 2 hours laboratory). Introduction to the geological aspects of ground water occurrence and chemistry and to elementary ground water flow and well problems.
Professor Grice

186-612A APPLIED STRUCTURAL GEOLOGY. (2 hours lectures or seminar and 3 hours lab. or problems). Relationship of structures to mineral deposits and the graphic analysis of ore geometry.
Professor Eakins

186-613B REGIONAL STRUCTURAL ANALYSIS. (2 hours lectures, 2 hours laboratory). Interpretation of structural measurements in complexly deformed rocks. Regional geometric, kinematic and tectonic analysis.
Professor Hynes

186-614A GEOMORPHOLOGY I. (2 hours lecture or seminar and 3 hours laboratory). Weathering, mass-wasting, slopes and Fluvial processes.
Professor Elson

186-615B GEOMORPHOLOGY II. (2 hours lecture or seminar and 3 hours laboratory). Coasts, Eolian landforms, glaciation, Karst and volcanism.
Professor Elson

186-700D PRELIMINARY DOCTORAL EXAMINATION.

186-705D PETROLOGY. (2 hours lectures or seminar). Selected topics on recent theoretical

and experimental work in igneous and metamorphic petrology.
Professors Francis and Martin

186-706D ADVANCED SEDIMENTOLOGY. (2 hours lectures or seminar and 3 hours laboratory). Classical and recent papers on sedimentary rocks, processes and environments of transport, deposition, diagenesis and lithification, sedimentary mineral deposits. Basin evolution. Sedimentation and tectonics. Methods of study of sedimentary rocks and statistics.
Professors Hesse and Mountjoy

- **186-708D ADVANCED STRATIGRAPHY.** (2 hours lectures or seminar, laboratory work). Problems of the stratigraphic record with particular reference to North America.
Professor Stearn

186-709D GEOLOGY OF PETROLEUM. (2 hours lectures or seminar). Theories of hydrocarbon and petroleum origin; migration of petroleum; character of the reservoir and condition of fluids and gases in it. Structural traps, stratigraphic traps. A brief survey of the petroleum resources of the world. Classical and recent papers on petroleum geology are discussed.
Professor Mountjoy

- **186-710A GEOTECTONICS.** (2 hours lectures or seminars). The plate tectonic theory. Plate tectonics and orogenesis. Plate tectonics in the geologic past. Problems of tectonic evolution in Precambrian time.
Professor Hynes.

- **186-711D MINERALOGY OF CRYSTALLINE ROCKS.** (2 hours lectures or seminar, plus laboratory). A survey of the mineralogy of igneous and metamorphic rocks. Laboratory section on microscopic (including U-stage) and X-ray diffraction determinative techniques in the main groups of rock-forming minerals.
Professors Francis and Martin

186-712D X-RAY CRYSTALLOGRAPHY. (6 hours laboratory; Prerequisite: Geology 186-211A). Techniques of x-ray diffraction applied to a crystallographic research problem.
Professor Donnay

186-713D ADVANCED ECONOMIC GEOLOGY. (4 hours lectures or seminar and assigned problems). Ore genesis; physical-chemical aspects of mineral deposits; classic examples and world distribution of mineral resources.
Professor MacLean

- **186-714A GLACIAL GEOLOGY.** (2 hours lectures or seminar and 3 hours laboratory or seminar). Introduction to glaciers; processes of glacial erosion, transport and deposition, including sediments and landforms produced.
Professor Elson

186-715A INSTRUMENTAL ANALYSIS. (1 hour lecture, 3 hours laboratory). Application of instrumental methods of analysis to materials of geological interest. Electron microprobe, x-ray spectrometry, x-ray diffraction, atomic absorption.
Professor Webber and Staff

186-716B ECONOMIC GEOLOGY LABORATORY. (2 hours lectures, 3 hours laboratory per week). Study of suites of ores and rocks from important mining districts. Specific projects may be undertaken.
Professor MacLean

186-717D ADVANCED EARTH PHYSICS. (2 hours lectures or seminar and assignments). Discussion of selected topics in earth physics.
Professor Saull and Solid Earth Geophysics Staff

186-719B ISOTOPE GEOLOGY SEMINAR. (2 hours seminar and assigned reading; Prerequisites: 186-519A and permission of instructor). In-depth study based on literature sources of applications of isotopic data to current geological problems.
Professor Doig.

186-720D ASSIGNED READINGS AND SEMINAR. Field of study and director to be specified.

- **186-721D RECENT SEDIMENTS AND MARINE GEOLOGY.** (Also Marine Sciences 395-721D). (2 hours seminar, lectures and assignments). Emphasizes recent research concerning sediments, sedimentary processes, and structure of continental margins, ocean basins and mid-ocean ridges. Sediment diagenesis. Chemistry of seawater and sediments. Evolution of ocean basins; sea-floor spreading and plate tectonics.
Professors d'Anglejan, Hesse and Mountjoy

186-722D ADVANCED ENGINEERING GEOLOGY. (2 hours seminar, 2 hours laboratory or assignments). Application of knowledge of geological materials and processes in the investigation, design, construction and maintenance of foundations and other engineering projects.
Professor Grice

- **186-724B QUATERNARY GEOLOGY.** (2 hours lectures or seminar and 3 hours laboratory or seminar). Geological processes peripheral to ice sheets and resulting from climatic changes elsewhere. Quaternary statigraphy and history with emphasis on North America.
Professor Elson

186-725A INDEPENDENT STUDIES IN GEOLOGICAL SCIENCES. Research and/or reading project. Independent study under the guidance of qualified staff in areas of special interest to the student. Not available to students who have taken 186-720D.

186-726B INDEPENDENT STUDIES IN GEOLOGICAL SCIENCES. Research and/or reading project. Independent study under the guidance of qualified staff in areas of special interest to the student. Not available to students who have taken 186-720D.

E11 DEPARTMENT OF MATHEMATICS

Burnside Hall
805 Sherbrooke Street West
Montreal, PQ
Canada H3A 2K6

STAFF

Professors - J. CHOKSI *(Chairman);* M. BARR: W. BROWN; I. CONNELL; K. GOWRISANKARAN; M. HERSCHORN; C. HERZ; J. LAMBEK; M. MAKKAI: A. MATHAI; W. MOSER; T. OKUBO; B. RATTRAY; E. ROSENTHALL; H. RUBEN; V. SESHADRI; C. SOLIN; K.K. TAM; J. TAYLOR

Associate Professors - W.J. ANDERSON; M. BUNGE; C. COSTLEY; S. DRURY; A. EVANS; D. GILDENHUYS; W. JONSSON; J. LABUTE; W. LANGFORD; B. LAWRUK; S. MASLOWE; S. MELAMED; R. RIGELHOF; C. ROTH; K. RUSSELL; N. SANCHO; G. SCHMIDT; S. SHNIDER; G. STYAN; D. SUSSMAN; J. TURNER; R. VERMES; S. ZLOBEC

Assistant Professors - D. WOLFSON; K.J. WORSLEY

NSERC Research Fellow - B. MARSHALL

NOTE A brochure "Information for Graduate Students in Mathematics" supplements the information contained in this Announcement and should be obtained from the Department.

ADMISSION

Applicants for admission to degree programs in pure mathematics should hold a Bachelor's degree equivalent to a McGill honours degree in Mathematics or closely allied subject. In particular, applicants are normally expected to have a strong background in linear algebra, abstract algebra and real and complex analysis at the level indicated in the description of the placement test (see the above-mentioned brochure for details).

Applicants for admission to the Master's program in Applied Statistics should hold a Bachelor's degree in Statistics, Mathematics or closely allied subject. This degree should be equivalent to the McGill honours or majors degree. Applicants are normally expected to have a strong background in matrix algebra, advanced calculus and undergraduate statistics; some knowledge of computer programming and numerical analysis is also desirable.

Applicants for admission to the Master's program in Applied Mathematics should hold a Bachelor's degree equivalent to a McGill honours or majors degree in Mathematics or an allied science. They should have a strong background in linear algebra, real and complex analysis, ordinary differential equations and numerical analysis. Some knowledge of computer programming is also desirable.

REQUIREMENTS

Master's Degrees

The Department of Mathematics offers three distinct programs of study leading to the Master's degree. The requirements, in general, consist of a minimum of three courses and a thesis, although in certain cases four courses may be required. The appropriate courses for the general program are 189-571D, 189-572D and 189-583A. In some instances 189-372D may be substituted for 189-572D. This program is recommended for students who intend to continue for the Ph.D. degree and are working in pure mathematics. Students who are working in applied mathematics, or probability and mathematical statistics, will generally be advised to enrol in courses other than 189-571D and 189-583A; all students in probability and statistics need to have 189-556A and 557B (or equivalent). There are two applied programs designed for students intending to pursue a career in industry and business after obtaining the Master's degree. In the Applied Mathematics program, students are required to pass three (in some instances four) full courses in mathematics. The requirements in the Applied Statistics program are normally four full courses, at least three of which (including 189-556A -557B) must be taken in the Department of Mathematics. Courses are chosen after consultation with members of staff. The student's total program must be approved by both the department chairman or deputy and the thesis adviser. All three programs require participation in assigned seminars and submission of a thesis. The thesis need not be an original contribution to knowledge, but may be of an expository nature.

Ph.D. Degree

To complete a Ph.D. program students must: (a) pass six approved courses beyond the Bachelor's level; (b) pass a Comprehensive Examination consisting of a written Part A, which is concerned with their general mathematical background, and an oral Part B concerned with their specialities; (c) demonstrate facility in reading mathematical articles in English and French as well as one further language (normally German or Russian); (d) submit a thesis judged to be an original contribution to knowledge.

Courses

As the department is obliged to prepare this announcement very early in the academic year, it can guarantee that there will be changes. The student should therefore consult the department for an accurate list of the courses actually offered. The courses marked with • are unlikely to be given.

NOTE: WITH THE CONSENT OF THE INSTRUCTOR, PREREQUISITES AND COREQUISITES FOR COURSES MAY BE WAIVED IN INDIVIDUAL CASES.

189-489A MATHEMATICAL LOGIC. (3 credits; Prerequisite approval of instructor). Propositional logic and first order logic; completeness and compactness theorems. Introduction to model theory. Lindstrom's characterization of first order logic. If time allows, a selection of the following topics: Herbrand's theorem, Gentzen's calculus, Craig's interpolation theorem, Beth's definability theorem.

189-490B MATHEMATICAL LOGIC. (3 credits; Prerequisite: 189-489A). Introduction to recursion theory; recursively enumerable sets, relative recursiveness, Freidberg-Muchnik theorem. Incompleteness, undecidability and undefinability theorems of Gödel, Church, Rosser and Tarski. Decidable and undecidable theories.

189-555A FLUID DYNAMICS. (3 credits). Kinematics. Dynamics of general fluids. Inviscid fluids, Navier-Stokes equations. Exact solutions of Navier-Stokes equations. Low and high Reynolds number flow.

189-556A MATHEMATICAL STATISTICS I. Probability and distribution theory including discussion of some basic distributions in p-space. Regression and correlation theory. Laws of large numbers and central limit theorem.

189-557B MATHEMATICAL STATISTICS II. Sampling theory (including large-sample theory). Likelihood functions and information matrices. Hypothesis testing, estimation theory and decision theory. Distribution-free procedures.

189-571D HIGHER ALGEBRA. (6 credits; Prerequisite: 189-371D or equivalent). The rudiments of category theory, including adjoint functors; noetherian, artinian and semi-simple rings and modules, representations of finite groups; a continuation of commutative algebra, prime ideals, localization some algebraic number theory and a deeper study of field extensions.

189-572D REAL AND COMPLEX ANALYSIS. (8 credits; Prerequisites: 189-250A, -251B, 372D). The theory of measure and integration, basic Hilbert and Banach space theory, complex analysis from a modern viewpoint.

• **189-574A ORDINARY DIFFERENTIAL EQUATIONS.** (3 credits; Prerequisite: 189-374D). *Given in alternate years.* Review of existence and uniqueness theorems, linear systems, phase space and phase flows, stability theory. Additional topics selected from: periodic systems, Floquet theory, Poincare-Bendixon theorem, perturbation methods, bifurcation theory, strange attractors, boundary-value systems, applications.

• **189-575B PARTIAL DIFFERENTIAL EQUATIONS.** (3 credits; Prerequisite: 189-374D). A continuation of topics introduced in 189-374D.

189-578A NUMERICAL ANALYSIS. (3 credits; Prerequisite: 189-372D.) *Given in alternate years.* Basic error analysis; numerical solutions of non-linear equations by fixed point methods, interpolation, numerical integration and numerical solutions of ordinary differential equations.

• **189-579B NUMERICAL ANALYSIS.** (3 credits; Prerequisites: 189-250A, -251B or -327B.) *Given in alternate years.* Basic linear algebra, spectral radius, vector and matrix norms. Numerical linear algebra, solution of linear systems by direct and iterative methods, least squares solutions, computation of eigenvalues and eigenvectors, ill conditioned systems. Solution of non-linear systems of equations, Banach's fixed point theorem. Polynomial approximation, least-squares and uniform approximation. Boundary-value problems for different equations.

189-580A,B DIFFERENTIABLE MANIFOLDS I. (3 credits). Introduction to differentiable manifolds, their geometry and applications.

• **189-581A,B DIFFERENTIABLE MANIFOLDS II.** (3 credits). Topics in the geometry or applications of differentiable manifolds.

189-583A TOPOLOGICAL SPACES. (3 credits; Prerequisite: knowledge of metric space). Basic concepts connectedness, product and quotient spaces, metrization, compactness, function spaces.

189-585A,B INTEGRAL EQUATIONS AND TRANSFORMS. (3 credits). *Given in alternate years.* Integral transforms, introduction to the theory of Hilbert spaces. Fredholm and Volterra integral equations; exact and approximate solutions. Equations with Hermitian kernels. Hilbert-Schmidt theorem and consequences. Representation formulas for the solutions of initial and boundary value problems. Green's functions. Integral Transforms. Applications.

189-586B ADVANCED BOUNDARY AND INITIAL VALUE PROBLEMS. (3 credits; Prerequisites: 189-316B, 374D, or equivalent). Partial differential equations of applied mathematics. Dirichlet and Newmann problems; complex variable methods. Homogeneous and non-homogeneous problems; Green's functions, integral transform methods,

variational techniques. Pertubation theory. Applications.

189-587A ADVANCED PROBABILITY THEORY I. (3 credits; Prerequisite: 189-356A or equivalent). Basic measure and integration theory, with special reference to probability measures on (R^1, B^1). The Carathéodory Extension Theorem. The Correspondence Theorem on R^1. Random variables. Expectation: basic properties and discussion of the basic inequalities. Independence of families of events and of random variables. The Kolmogorov 0-1 law and consequences. Convergence concepts: almost sure, in probability, in L^p and their mutual relationships. Laws of large numbers: Khinchine's weak law. Kolmogorov's inequalities and three-series theorem. The strong law. Applications of the laws of large numbers.

- **189-588D ALGEBRAIC TOPOLOGY.** (6 credits). Introduction to homology and homotopy.

189-589B ADVANCED PROBABILITY THEORY II. (3 credits; Prerequisite: 189-587A or equivalent). Characteristic functions. Elementary properties. Inversion formula. Uniqueness, convolution and continuity theorems. Moments and characteristic functions, including finite and infinite series expansions for the latter in terms of the former. Central limit theorem. The UAN condition for double arrays of random variables. The Liapounov and Lindeberg-Feller theorems. *Indication* of further developments, and of rates of convergence results (in particular, the Berry-Esseen theorem). The law of the iterated logarithm. Conditional expectation. Honours students may register and gain Honours credit for 189-587A and 189-589B, separately.

- **189-602A,B ANALYTIC NUMBER THEORY I.** Arithmetical functions, elementary theory of the distribution of primes. Proof of the prime number theorem, Dirichlet's theorem on number of primes in arithmetic progression. Asymptotic and convergent formulas for the partitions of n. (A student will normally enrol in both 189-602 and 189-702. The course description is common).

- **189-603A,B LIE GROUPS AND LIE ALGEBRAS I.** Representation of linear groups and their Lie algebras. Commutative, nilpotent and solvable ideals of Lie algebras. Classification of classical simple Lie groups by means of Cartan's subalgebras. Weights of irreducible representation and structure of semi-simple Lie algebras. (A student will normally enrol in both 189-603 and 189-703. The course description is common).

- **189-611A,B ALGEBRAIC NUMBERS I.** Integral closure. Dedekind domains. Valuations, completions and local fields. Ramification and the different. The discriminant. The groups of units and ideal classes. Adeles and ideles. (A student will normally enrol in both 189-611 and 189-711. The course description is common).

- **189-612A,B ALGEBRAIC CURVES I.** A concrete introduction to algebraic geometry. Topics may vary from year to year and will include: plane algebraic curves, function fields in one variable, linear series and the theory of Riemann-Roch, elliptic curves. (A student will normally enrol in both 189-612 and 189-712. The course description is common).

- **189-614A,B THEORY OF RINGS I.** Rings and modules. Prime and maximal ideals. Radicals. Semi-simple Artinian rings, semiperfect rings, semiprime Noetheian rings. Projective, injective and flat modules. Morita theory. Rings of quotients, localization and completion. Grouprings. (A student will normally enrol in both 189-614 and 189-714. The course description is common).

189-615A,B COMMUTATIVE ALGEBRA I. Localization and completion. Primary decomposition. Dimension theory. Homological theory of Noetherian rings. Regular sequences Kähler differentials. Unramified, smooth and étale extensions. The spectrum of a commutative ring and other applications to algebraic geometry. (Normally, a student will enrol in both 189-615 and 189-715. The course description is common).

- **189-616A,B HOMOLOGICAL ALGEBRA I.** Modules. Diagrams. Free, injective, projective and flat modules. Tensor product and Hom. Derived functors. Dimension theory. Local rings. Cohomology of groups. (A student will normally enrol in both 189-616 and 189-716. The course description is common).

189-617A,B CATEGORIES I. Categories, functors, natural transformations. Adjoint functors and limits. Embeddings and completions. Algebraic categories and standard constructions. Abelian and homological categories. Categories and the foundations of mathematics. (A student will normally enrol in both 189-617 and 189-717. The course description is common).

- **189-618A,B ADVANCED GROUP THEORY I.** The structure of groups. Special classes of groups. Representation theory. Additional topics to suit the class. (A student will normally enrol in both 189-618 and 189-718. The course description is common).

189-619A,B APPLIED CATEGORY THEORY I. Review of adjoint functors, triples and their algebras. Localization with applications to modules, topological spaces and sheaves. Duality theory with applications to Morita theory and the duality theorems of Pontrjagin, Stone, Gelfand and Kaplansky. Categories and deductive systems. Introduction to toposes. Applications to computer science and linguistics. (A student normally will enrol in both 189-619 and 189-719. The course description is common).

189-631A,B COMPLEX FUNCTION THEORY I. (Prerequisite 189-572D or equivalent). Advanced

topics in one complex variable, and some topics in several complex variables.

189-633A,B HARMONIC ANALYSIS I. (Prerequisites 189-372D or preferably 189-572D). Classical harmonic analysis on the circle (Fourier series) and on the line (Fourier integrals). A brief introduction to harmonic analysis on locally compact groups.

189-635A,B FUNCTIONAL ANALYSIS I. (Prerequisite 189-572D). Banach spaces. Hilbert spaces and linear operators on these. Spectral theory. Banach algebras. A brief introduction to locally convex spaces. (A student will normally enrol in both 189-635 and 189-735. The course description is common).

189-637A,B PARTIAL DIFFERENTIAL EQUATIONS I. A modern introduction to the theory of linear differential equations, using the theory of distribution and Fourier transforms.

- **189-639A,B INTRODUCTION TO POTENTIAL THEORY.** Classical potential theory. Dirichiet problem. Harmonic and superharmonic functions. Introduction to modern axiomatic potential theory.

- **180-651A,B ASYMPTOTIC EXPANSION AND PERTURBATION METHODS.** Asymptotic series. Summation. Asymptotic estimation of integrals. Regular and singular perturbation problems and asymptotic solution of differential equations.

- **189-653A,B ADVANCED TOPICS IN FLUID DYNAMICS I.** Topics selected from linear and nonlinear stability theory and waves, rotating flows, geophysical fluid dynamics, linearization and perturbation methods applied to the nonlinear partial differential equations of fluid mechanics.

- **189-654A,B ADVANCED TOPICS IN FLUID DYNAMICS II.** Topics selected from linear and nonlinear stability theory and waves, rotating flows, geophysical fluid dynamics, linearization and perturbation methods applied to the nonlinear partial differential equations of fluid mechanics.

- **189-655A,B TOPICS IN DIFFERENTIAL EQUATIONS I.** Specialized topics in ordinary and partial differential equations such as stability, bifurcation, qualitative theory of non-linear systems, boundary value problems, advanced solution techniques.

- **189-656A,B TOPICS IN DIFFERENTIAL EQUATIONS II.** Specialized topics in ordinary and partial differential equations such as stability, bifurcation, qualitative theory of nonlinear systems, boundary value problems, advanced solution techniques.

- **189-657A,B ADVANCED NUMERICAL ANALYSIS I.** Specialized topics in numerical analysis such as the solution of ordinary and partial differential equations, advanced computational linear algebra, numerical optimization, approximation theory.

- **189-659A,B OPTIMIZATION I.** This course together with 189-660, 189-661, 189-662 will cover basic areas in optimization such as linear and nonlinear programming, dynamic programming, the calculus of variations and optimal control theory, optimization in abstract spaces.

- **189-660A,B OPTIMIZATION II.** This course together with 189-659, 189-661, 189-662 will cover basic areas in optimization such as linear and nonlinear programming, dynamic programming, the calculus of Variations and optimal control theory, optimization in abstract spaces.

- **189-661A,B OPTIMIZATION III.** This course together with 189-659, 189-660, 189-662 will cover basic areas in optimization such as linear and nonlinear programming, dynamic programming, the calculus of variations and optimal control theory, optimization in abstract spaces.

- **189-662A,B OPTIMIZATION IV.** This course together with 189-659, 189-660, 189-661 will cover basic areas in optimization such as linear and nonlinear programming, dynamic programming, the calculus of variations and optimal control theory, optimization in abstract spaces.

- **189-670A,B STOCHASTIC PROCESSES.** Basic concepts. Stationary and nonstationary processes. Correlation function. Power spectra. Linear systems. Mean square periodicity and Fourier series. Sampling theorems. Series expansions. Linear mean square estimation.

  189-671A,B APPLICATIONS OF STOCHASTIC PROCESSES. Discrete parameter Markov chains, including branching processes and random walks. Limit theorems and ergodic properties of Markov chains. Continuous parameter Markov chains, including the general birth and death process. Selected topics from the following areas: renewal processes, queueing theory, Brownianmotion, storage and inventory, statistical inference for stochastic processes.

- **189-672A,B ESTIMATION.** The theory of point and set estimation of parameters in statistical models. This includes Bayesian and decision-theoretic approaches.

- **189-673A,B TESTS OF HYPOTHESES I.** A systematic study of the modern theory of testing statistical hypotheses, with applications.

  189-674A,B EXPERIMENTAL DESIGN I. Review of one-way and two-way analyses of variance; randomized block, Latin square and incomplete block designs; factorial designs, confounding, fractional replications; random and mixed models; split-plot designs; nested and hierarchical designs; response surface analysis.

- **189-675A,B NONPARAMETRIC STATISTICS I.** Theoretical aspects of order statistics: distributions, moments, product moments. Tests based on the sample distribution function. Statistics of the Kolmogorov-Smirnov type. Applied aspects of various nonparametric tests: description, illustration, theoretical justification, comparisons.

- **189-676A,B MULTIVARIATE ANALYSIS I.** Properties of the multivariate normal distribution. Central and noncentral Wishart distribution. Statistical inference for multivariate normal populations. Hotelling's T^2. The product-moment correlation coefficient. Canonical correlations. Multivariate linear models. Principal components. Factor analysis.

- **189-677A,B DECISION THEORY I.** Formulation of the statistical decision problem. Bayes and minimax solutions. Hypothesis testing and estimation from the point of view of decision theory. Sequential analysis.

189-678A,B APPLIED STATISTICAL METHODS AND DATA ANALYSIS I. Statistical data analysis, with special reference to applications of the main statistical methods to problems in medicine, biology, chemistry, etc. Extensive use of computer methods, especially subroutine packages for statistical data description, display and analysis.

- **189-679A,B APPLIED STATISTICAL METHODS AND DATA ANALYSIS II.** Same emphasis as 189-678 but with a different selection of statistical methods.

189-681A,B TIME SERIES ANALYSIS. Stationary stochastic processes. Autocovariance and autocovariance generating functions. The periodogram. Model estimation. Likelihood function. Estimation for autoregressive moving average and mixed processes. Computer simulation; diagnostic checking, tests with residuals. Estimation of spectral density; Bartlett, Daniell, Blackman-Tukey spectral windows. Asymptotic moments of spectral estimates.

- **189-682A,B MATRIX THEORY WITH STATISTICAL AND OTHER APPLICATIONS:** Inequalities for trace and rank. Generalized inverses; idempotent matrices. Schur complement. Factorizations into triangular and diagonal form; singular values. Normal matrices. Algebraic and geometric multiplicity. Computational procedures; Householder transformations, condition number. Applications to least squares. Courant-Fischer min-max theorem; related inequalities. Quadratic forms in normal variables: distribution, Characteristic function, cumulants and independence.

- **189-683A,B LINEAR MODELS.** General univariate linear models with full rank and with less than full rank. Best linear unbiased estimators. General linear hypothesis. Computational procedures. Weighted least squares. Analysis of variance with equal and unequal numbers in cells. Latin squares, complete factorial designs. Prediction and confidence bands, multiple comparisons. Random effects models.

- **189-684A,B APPLIED SAMPLING TECHNIQUES.** Sampling and subsampling of clusters (one-stage, two-stage, and multi-stage). Unequal probability sampling with and without replacement. Double-sampling procedures. Repetitive surveys. Non-sampling errors (analytical and practical treatment). Analytical surveys. Optimization problems in sampling. Topics in the foundations of sample surveys. Other recent developments.

189-687A READING COURSE IN MATHEMATICAL LOGIC I. A highly specialized study.

189-688B READING COURSE IN MATHEMATICAL LOGIC II. A highly specialized study.

189-689A READING COURSE IN ALGEBRA I. A highly specialized study.

189-690B READING COURSE IN ALGEBRA II. A highly specialized study.

189-691A READING COURSE IN GEOMETRY AND TOPOLOGY I. A highly specialized study.

189-692B READING COURSE IN GEOMETRY AND TOPOLOGY II. A highly specialized study.

189-693A READING COURSE IN ANALYSIS I. A highly specialized study.

189-694B READING COURSE IN ANALYSIS II. A highly specialized study.

189-695A READING COURSE IN APPLIED MATHEMATICS I. A highly specialized study.

189-696B READING COURSE IN APPLIED MATHEMATICS II. A highly specialized study.

189-697A READING COURSE IN STATISTICS AND PROBABILITY I. A highly specialized study.

189-698B READING COURSE IN STATISTICS AND PROBABILITY II. A highly specialized study.

189-700D COMPREHENSIVE EXAMINATION: PART A. - WRITTEN

189-701D COMPREHENSIVE EXAMINATION: PART B. - ORAL

- **189-702A,B ANALYTIC NUMBER THEORY II.** Arithmetical functions, elementary theory of the distribution of primes. Proof of the prime number theorem, Dirichlet's theorem of number of primes in arithmetic progression. Asymptotic and convergent formulas for the partitions of n. (A student will normally enrol in both 189-602 and 189-702. The course description is common).

- **189-703A,B LIE GROUPS AND LIE ALGEBRAS II.** Representation of linear groups and their Lie algebras. Commutative, nilpotent and solvable

ideals of Lie algebras. Classification of classical simple Lie groups by means of Cartan's subalgebras. Weights of irreducible representation and structure of semi-simple Lie algebras. (A student will normally enrol in both 189-603 and 189-703. The course description is common).

- **189-704A,B TOPICS IN MATHEMATICAL LOGIC I.**
- **189-705A,B TOPICS IN MATHEMATICAL LOGIC II.**

189-706A,B TOPICS IN GEOMETRY AND TOPOLOGY I.

- **189-707A,B TOPICS IN GEOMETRY AND TOPOLOGY II.**
- **189-708A,B TOPICS IN GEOMETRY AND TOPOLOGY III.**
- **189-709A,B TOPICS IN GEOMETRY AND TOPOLOGY IV.**
- **189-711A,B ALGEBRAIC NUMBERS II.** Integral closure. Dedekind domains. Valuations, completions and local fields. Ramification and the different. The discriminant. The groups of units and ideal classes. Adeles and ideles. (A student will normally enrol in both 189-611 and 189-711. The course description is common).

- **189-712A,B ALGEBRAIC CURVES II.** A concrete introduction to algebraic geometry. Topics may vary from year to year and will include: plane algebraic curves, function fields in one variable, linear series and the theory of Riemann-Roch, elliptic curves. (A student will normally enrol in both 189-612 and 189-712. The course description is common).

- **189-714A,B THEORY OF RINGS II.** Rings and modules. Prime and maximal ideals. Radicals. Semisimple Artinian rings, semiperfect rings, semiprime Noetherian rings. Projective, injective and flat modules. Morita theory. Rings of quotients, localization and completion. Groupings. (A student will normally enrol in both 189-614 and 189-714. The course description is common).

189-715A,B COMMUTATIVE ALGEBRA II. Localization and completion. Primary decomposition. Dimension theory. Homological theory of Noetherian rings. Regular sequences. Kähler differentials. Unramified, smooth and étale extensions. The spectrum of a commutative ring and other applications to algebraic geometry. (Normally, a student will enrol in both 189-615 and 189-715. The course description is common).

- **189-716A,B HOMOLOGICAL ALGEBRA II.** Modules. Diagrams. Free, injective, projective and flat modules. Tensor product and Hom. Derived functors. Dimension theory. Local rings. Cohomology of groups. (A student will normally enrol in both 189-616 and 189-716. The course description is common).

189-717A,B CATEGORIES II. Categories, functors, natural transformations. Adjoint functors and limits. Embeddings and completions. Algebraic categories and standard constructions. Abelian and homological categories. Categories and the foundations of mathematics. (A student will normally enrol in both 189-617 and 189-717. The course description is common).

- **189-718A,B ADVANCED GROUP THEORY II.** The structure of groups. Special classes of groups. Representation theory. Additional topics to suit the class. (A student will normally enrol in both 189-618 and 189-718. The course description is common).

- **189-719A,B APPLIED CATEGORY THEORY II.** Review of adjoint functors, triples and their algebras. Localization with applications to modules. Topological spaces and sheaves. Duality theory with applications to Morita theory and the duality theorems of Pontrjagin, Stone, Gelfand and Kaplansky. Categories and deductive systems. Introduction to toposes. Applications to computer science and linguistics. (A student normally will enrol in 189-619 and 189-719. The course description is common).

- **189-720A,B TOPICS IN ALGEBRA I.** This course covers and advanced topic in some branch of algebra.

189-721A,B TOPICS IN ALGEBRA II. This course covers an advanced topic in some branch of algebra.

189-722A,B TOPICS IN ALGEBRA III. This course covers an advanced topic in some branch of algebra.

- **189-723A,B TOPICS IN ALGEBRA IV.** This course covers an advanced topic in some branch of algebra.
- **189-724A,B TOPICS IN ALBEGRA V.** This course covers an advanced topic in some branch of algebra.
- **189-725A,B TOPICS IN ALGEBRA VI.** This course covers an advanced topic in some branch of algebra.
- **189-731A,B COMPLEX FUNCTION THEORY II.** (Prerequisite 189-631.) Topics in the theory of functions of several complex variables.

189-733A,B HARMONIC ANALYSIS II. (Prerequisites 189-633, 189-635 and 189-735.) The contents of this course will consist of further topics in classical harmonic analysis and a more detailed study of abstract harmonic analysis on locally compact groups.

189-735A,B FUNCTIONAL ANALYSIS II. (Prerequisites 189-372D 189-635.) Banach spaces. Hilbert spaces and linear operators on these. Spectral theory. Banach algebras. A brief introduction to locally convex spaces. (A student

will normally enrol in both 189-635 and 189-735. The course description is common).

- **189-737A,B PARTIAL DIFFERENTIAL EQUATIONS II.** (Prerequisite 189-637). A continuation of the theory covered in 189-637.
- **189-738A,B STUDENT SEMINAR IN ANALYSIS I.** This seminar, which is given in alternate years with 189-739, covers some topic in analysis of a fundamental nature or of considerable current interest. Each course is taken, in successive years, by Ph.D students in analysis: the students give lectures expounding research papers on the topic in question. The member of the staff in charge, starts the seminar, guides the students in their preparation and takes over the exposition at difficult stages.

189-739A,B STUDENT SEMINAR IN ANALYSIS II. This seminar, which is given in alternate years with 189-738, covers some topic in analysis of a fundamental nature or of considerable current interest. Each course is taken, in successive years, by Ph.D. students in analysis: the students give lectures expounding research papers on the topic in question. The member of the staff in charge, starts the seminar, guides the students in their preparation and takes over the exposition at difficult stages.

- **189-740A,B TOPICS IN ANALYSIS I.** This course covers an advanced topic in some branch of analysis.
- **189-741A,B TOPICS IN ANALYSIS II.** This course covers an advanced topic in some branch of analysis.

189-742A,B TOPICS IN ANALYSIS III. This course covers an advanced topic in some branch of analysis.

189-743A,B TOPICS IN ANALYSIS IV. This course covers an advanced topic in some branch of analysis.

- **189-744A,B TOPICS IN ANALYSIS V.** This course covers an advanced topic in some branch of analysis.
- **189-745A,B TOPICS IN ANALYSIS VI.** This course covers an advanced topic in some branch of analysis.

- **189-761A,B TOPICS IN APPLIED MATHEMATICS I.** This course covers some advanced topic in applied mathematics.

189-762A,B TOPICS IN APPLIED MATHEMATICS II. This course covers some advanced topic in applied mathematics.

189-763A,B TOPICS IN APPLIED MATHEMATICS III. This course covers some advanced topic in applied mathematics.

- **189-764A,B TOPICS IN APPLIED MATHEMATICS IV.** This course covers some advanced topic in applied mathematics.

- **189-771A,B TOPICS IN STOCHASTIC PROCESSES I.** This course covers some advanced topic.

- **189-772A,B TOPICS IN STOCHASTIC PROCESSES II.** This course covers an advanced topic.

189-782A,B TOPICS IN STATISTICS AND PROBABILITY I. This course covers an advanced topic.

189-783A,B TOPICS IN STATISTICS AND PROBABILITY II. This course covers an advanced topic.

- **189-784A,B TOPICS IN STATISTICS AND PROBABILITY III.** This course covers an advanced topic.

- **189-785A,B TOPICS IN STATISTICS AND PROBABILITY IV.** This course covers an advanced topic.

189-791D SEMINARS IN MATHEMATICAL LOGIC.

189-792D SEMINARS IN ALGEBRA.

189-794D SEMINARS IN GEOMETRY AND TOPOLOGY.

189-795D SEMINARS IN CURRENT RESEARCH IN ANALYSIS.

189-796D SEMINARS IN ANALYSIS.

189-797D SEMINARS IN APPLIED MATHEMATICS.

189-798D SEMINARS IN STATISTICS AND PROBABILITY.

E12 DEPARTMENT OF MECHANICAL ENGINEERING

MacDonald Engineering Building
817 Sherbrooke Street West
Montreal, PQ
Canada H3A 2K6

STAFF

Professors - D.R. AXELRAD: W. BRUCE: J.H.S. LEE; B.G. NEWMAN; M.P. PAIDOUSSIS *(Chairman)*
Associate Professors - A.M. AHMED; G.G. BACH; J.C. CHERNA; G. FEKETE; J.M. FORDE; R.

HOFFMAN; R. KNYSTAUTAS; L. KOPS; C.L. MURPHY; D. PFEIFFER; J.W. PROVAN; A.L. THOMPSON; J.H.T. WU; P.J. ZSOMBOR-MURRAY

Assistant Professors - B.R. BALIGA; CHRISTIANNE GUIRAO; A.K. MISRA; S. PRICE

Auxiliary Professor - D. ATACK; M. KHALID

Faculty Lecturer - L.J. VROOMEN

Advanced courses and laboratory facilities are offered for graduate study leading to the M.Eng. and the Ph.D. degrees in Mechanical Engineering.

Graduate studies and research are at present being conducted in the fields of fluid mechanics, mechanics of solids, aerodynamics, flow-induced vibration and hydroelastic stability, mechanical aspects of surgical implants, low cost energy conversion, gasdynamics, conventional and unconventional machining processes, machine tool design, combustion and road safety research and automatic control systems.

Facilities include wind tunnels, a water tunnel, a high enthalpy jet, shock chambers and tubes, a scanning electron microscope, machine tools for conventional and unconventional (ECM. EDM.) methods of machining, X-ray equipment, lasers, hot-wire anemometers and a data acquisition and control computer with remote-access terminals.

ADMISSION

The general rules of the Faculty apply. Candidates who come from other institutions are expected to have an academic background equivalent to the undergraduate curriculum in mechanical engineering at McGill or to make up any deficiencies in a qualifying year. Applicants are requested to state in as much detail as possible their particular field of interest for graduate study.

The minimum residence requirement for the M.Eng. degree is three terms of full-time study, one of which may be a summer term. In the case of M.Eng., Option B a part-time program is available. Candidates for the M.Eng., Option A degree should expect to spend at least 18 months of full-time work to fulfill the requirements. The residency requirements for Ph.D. candidates is outlined in the General Announcement of the Faculty.

REQUIREMENTS

M.Eng. (Option A) Degree

This is an option in which a research thesis, course 305-609 and six other courses are necessary for progress in their selected field of research. Selections are made from those listed below, or from courses offered by other engineering departments. Students who do not hold an undergraduate engineering (or equivalent) degree and who are accepted into this option will register for the M.Sc. degree. This applies particularly to students engaged in interdisciplinary research. A thesis describing the candidate's research is to be submitted in accordance with the rules of the Faculty and is the major requirement for the degree.

M.Eng. (Option B) Degree

This is a course type of Master's degree which requires twelve graduate courses for completion. All candidates are required to pass the following courses:

305-605A Applied Mathematics I;
305-610A Fundamentals of Fluid Mechanics;
305-632A Stress Analysis;
305-642A System Dynamics.

In addition, candidates may devise individual programs from the following areas of specialization:

A. THERMO-FLUIDS:
305-515A; -532B; -533A; -612B; -615B; -617A; -633B; -650A; -651B; -652B.

B. SOLID MECHANICS AND STRESS ANALYSIS:
305-534A; -535B; -633B; -635B; -643B; -645B.

C. SYSTEM DYNAMICS AND CONTROL:
305-413B; -527B; -528A; -624A; -643B; -645B.

D. INDUSTRIAL AND PRODUCTION ENGINEERING:
305-372A; -475A; -527B; -528A; -621B; -623B; -624A; -626B; -633B.

At the end of their programs each candidate is required to submit the necessary material for completion of the courses:

305-603 Design Project I;
305-604 Design Project II;
305-609 Seminar.

Close industrial liaison is envisaged in these courses.

Ph.D. Degree

Candidates normally register for the M.Eng. degree in the first instance. However, in exceptional cases where the research work is proceeding very satisfactorily, or where the equivalent of the M.Eng. degree has been completed at another university, candidates may be permitted to proceed directly to the Ph.D. degree without submitting a master's thesis as long as they have satisfied the course requirements for the M.Eng. degree. Courses of study selected for a Ph.D. program will depend upon the existing academic qualifications of the candidate and those needed for effective research. Candidates are required to pass a preliminary oral examination within about 6 months of their initial registration for the Ph.D. degree.

COURSES FOR HIGHER DEGREES

The following courses available in the undergraduate curriculum of the Mechanical Engineering Department may be selected for Graduate credit provided that both of the following conditions are met:

i) the course is recommended by the candidate's supervisor,
ii) no equivalent course was taken during the candidate's undergraduate program.

305-342A STATISTICAL THERMODYNAMICS

305-372A MACHINING PROCESSES

305-413B CONTROL SYSTEMS

305-431B GAS DYNAMICS

305-432B AIRCRAFT STRUCTURES

305-475A N.C. of M/C TOOLS

COURSES OPEN TO GRADUATES AND TO QUALIFIED UNDERGRADUATES

305-500A,B SELECTED TOPICS IN MECHANICAL ENGINEERING. A course to allow the introduction of new topics in Mechanical Engineering as needs arise by regular and visiting staff.
Professor Kyrtatos

• **305-502A TOPICS OF ADVANCED MATHEMATICS FOR ENGINEERS I.** Various aspects of elementary set theory, topology, mappings, linear operators, functionals, functional analysis and variational principles, as applied to engineering research problems. (Text: Simmons: Introduction to Topology and Modern Analysis; McGraw-Hill).
Professor Provan

• **305-503B TOPICS OF ADVANCED MATHEMATICS FOR ENGINEERS II.** (Prerequisite: 305-502A). Various aspects of algebraic spaces, measure theory, Lebesque integration, probability algebra and the theory of distributions as applied to engineering research problems.
Professor Provan

305-507X NUMERICAL ANALYSIS FOR COMPUTER USERS I. Various topics from numerical analysis are selected with an eye to computer usage. Interpolation, quadrature, roots of one and several variables, matrices, fitting by least squares and spline as well as methods of function evaluation will be considered.
Professor Bach

305-515A INDUSTRIAL AERODYNAMICS. Characteristics of the earth's boundary layer, flow patterns around buildings and structures, their effect on the dispersal of pollutants, modelling and model testing, wind tunnel corrections, shelter provided by buildings, pressure distribution over buildings providing data for the structural designer, wind-oscillations of buildings and structures.
Professors Fekete and Price

• **305-518B RANDOM PROCESSES IN ENGINEERING.** (Prerequisite: elementary probability or statistics). Probabilistic, spectral and correlation analysis of stochastic processes with engineering applications including random vibrations, turbulence, queueing problems, Brownian motion, diffusion and aggregation. Probabilistic theory includes: introduction to phase space ensembles and ergodicity, discrete and continuous probability distributions, moments and generating functions, joint and conditional probability. Normal, exponential, Poisson and Markov processes are analysed using analytical and Monte Carlo methods.
Dr. Thibault

305-520B STATISTICAL MECHANICS. Classical mechanics, fundamental hypothesis, H.-theorem, coarse graining and contraction, Liouville equation, perturbation theory of Bogoliubov, Frieman and Sandri, the kinetic equations of Boltzmann, Fokker-Planck, Vlasov and Lenard-Balescu, the hydro-dynamic equations and transport phenomena, stochastic processes, fluctulations, the Master equation, Onsager relations, Langevin equations and Brownian motion.
Professor Lee

305-523B MACHINE TOOL ENGINEERING. Common design features of machine tools. Elements of machine tools. Machine tools for production in large series: automatics, transfer machines and production, line technology, line balancing, group technology, numerically controlled machines and machining centres, design of N/C tooling systems, fixturing for N/C large machine tool systems. Economic parameters.
Professor Cherna

305-525B INTRODUCTION TO NUCLEAR ENGINEERING. Elements of nuclear physics, radioisotopes and isotopic separation. The CANDU Power Plant description; reactor coolants and moderators, reactor kinetics and control. The reactor core. Fuel cycles. Survey of reactor types. Radiation protection and waste management. Environment and safety considerations.
Professor Paidoussis

• **305-527B COMPUTER-AIDED MECHANICAL DESIGN. (Evening Course).** Given in alternate years. Computer graphics, automated

draughting, function visualization. Interactive techniques and the engineering design process. Two- and three - dimensional curve fitting. Optimization, layout, and packaging problems. Stress and force analysis. Network andflow analysis. Project planning and scheduling techniques. The course is conducted on a seminar and informal lecture basis. Students will review topics on a broad basis but will concentrate on two topics, writing original programming in one of these.
Professor Pfeiffer

- **305-528A MANUFACTURING AUTOMATION.** An integrated approach to discrete manufacturing systems based on the digital computer. Linking the manufacturing function to the computer-aided design function. Computer an direct numerical control of machine tools. Automated inspection, material handling and production control. Technological, social and economic aspects will be discussed.
Professor Hoffman

305-531B AEROELASTICITY. (Prerequisite: 305-533A). Wing divergence using strip theory aerodynamics. The effect of aircraft flexibility on the control and stability of the aircraft. Flutter calculations for two dimensional wings with discussion of three dimensional effects. Some examples of aeroelastic instability and the relevant analysis of non-aeronautical type structures will also be given.
Professor Price

305-532B AIRCRAFT PERFORMANCE, STABILITY AND CONTROL. Aircraft performance criteria such as range, endurance, rate of climb, maximum ceiling for steady and accelerated flight. Landing and take-off distances. Static and dynamic stability in the longitudinal (stick-fixed and stick-free) and coupled lateral and directional modes. Control response for all three modes.
Professor Price

305-533A SUBSONIC AERODYNAMICS. Kinematics; equations of motion; vorticity and circulation; conformal mapping and flow round simple bodies. Two dimensional flow round aerofoils. Three dimensional flow; high and low aspect-ratio wings; airscrews. Wind tunnel interference. Similarity rules for subsonic irrotational flow. Supplemented by demonstrations and experiments in the laboratory.
Professor Newman

305-536B TRIBOLOGY. Friction; wear; solid lubrication, boundary lubrication; externally pressurized bearings; fluid film lubrication; rolling contact bearings; bearing selection and design lubricant chemistry; films and loops.
Professor Atack

305-553B ENVIRONMENTAL THERMAL ENGINEERING. Review of thermodynamics and basic heat transfer. Refrigeration: vapour compression, refrigerants, absorption refrigeration, heat pumps; miscellaneous refrigeration processes (e.g. gaseous. thermoelectric); cryogenics. Psychrometrics: air properties, charts and measurements, transfer processes, extended coil heating and cooling. Solar radiation: flat plate and concentration collectors for solar energy conversion. Heat transmissionin structures and solar radiation effects. Air conditioning calculations. Material drying.
Professor Forde

305-560B BIOMECHANICS OF TISSUES. Tissue biomechanics is the study of the response of biological tissue to forces and deformations to which it is subjected. Tissues such as bone, tendon and ligament act to transmit load and together with the contractile ability of muscle, provide a means for locomotion. The course emphasizes the fundamentals of continuum machanics in relation to the morphological classification of various tissues. Basic principles of viscoelasticity aid the student in understanding the rate sensivitivy of biological materials. The stress-strain-time or constitutive equations for soft connective tissue components is determined. The mechanical response of muscle tissue in the passive and stimulated states is also examined.
Professor Ahmed

305-561B BIOMECHANICS OF MUSCULOSKELETAL SYSTEMS. The musculoskeletal system; general characteristics and classification of tissues and joints. Biomechanics and clinical problems in orthopaedics. Modelling of musculoskeletal systems. Passive and active displacements of components: fundamentals of 3-D kinematics, applications, measurement and interpretation techniques, case studies, load-bearing characteristics of muscuoskeletal systems: load-deformation properties of passive connective tissue, passive and stimulated muscle response, fundamentals of linear programming, optimization techniques and sensitivity analysis, experimental approaches, case studies.
Professor Ahmed

COURSES FOR GRADUATE STUDENTS ONLY

305-602A,B SPECIAL TOPICS IN MECHANICAL ENGINEERING. New developments related to Mechanical Engineering will be presented either by staff or by visiting professors.

305-603A,B or C DESIGN PROJECT I. A design project undertaken under the direct supervision of at least one staff member. Examination entails the writing of a report which is examined internally

by the supervisor and another staff member appointed by the Option B Committee of the Mechanical Engineering Department.
Staff

305-604A,B, or C DESIGN PROJECT II. A continuation of 305-603A,B, orC.
Staff

305-605A APPLIED MATHEMATICS I. A brief treatment of tensor analysis. A short review of complex variables. Analytical methods of solution for partial differential equations occurring with great frequency in engineering will then be given. Perturbation methods, integral methods, asymptotic methods and variational techniques. In addition, numerical methods of solution will also be presented.
Professor Bach

305-606B APPLIED MATHEMATICS II. (Prerequisite: 305-605A). Classificationof P.D.Es. according to elliptic, parabolic and hyperbolic types. Finite difference calculus and solutionsof partial difference and P.D.Es. Numerical solutions, i.e., matrix and finite element methods for elliptic type, finite difference and characteristic methods for hyperbolic type. Applications of the techniques to problems in stress analysis, fluid dynamics, heat transfer, chemical diffusion and vibrations.
Professor Bach

305-608Y NUMERICAL ANALYSIS FOR COMPUTER USERS II. (Prerequisite: 305-507X or equivalent). Predictor-corrector and Runge-Kutta methods for ordinary differential equations. Monte-Carlo methods and simulation, linear programming regression and Eigen value determination will be considered.
Professor Bach

305-609B,C SEMINAR. All candidates for a Master's degree are required to participate and to deliver one paper dealing with their particular area of research or interest.
Professor Kops

305-610A,B FUNDAMENTALS OF FLUID MECHANICS (Evening course). Conservation equations (continuum and molecular derivation) dimensional analysis and limiting forms of the Navier-Stokes equation, Couette and Rayleigh flows, Boundary layer flow, waves in fluids, shockwaves, magnetohydrodynamics, hydrodynamic stability and turbulence.
Professor Newman

305-612B VISCOUS FLOW AND BOUNDARY LAYER THEORY. Navier-Stokes equations, proof and exact solutions. Laminar boundary layer equations. Methods of solution. Separation. Compressible laminar boundary layer. Significance of Prandtl number. Numerical methods of solution. Stability of laminar flow and the causes of transition to turbulence. Incompressible turbulent boundary layer. Momentum and energy equations. Scales of turbulence. Law of the wall, roughness and the prediction of skin friction. Prediction of the turbulent boundary using integral and field methods. Self-preserving turbulent flows including wakes and jets. Methods of measurement. Extension to compressible flow.
Professor Newman

305-615B UNSTEADY GASDYNAMICS I. Kinetic theory and conservation equations, shock detonation and deflagration wave structure and Hugoniot properties, acoustic theory and method of linearization, waves of finite amplitudes, wave interactions, Chester-Chisnell-Whitham theory, geometrical shock dynamics, weak shock theory of Chandrasekhar, Friedrichs and Whitham.
Professor Lee

305-617A UNSTEADY GASDYNAMICS II. Similarity methods in gasdynamics, blast wave theory, nonsimilar techniques of Sakurai and Oshima, integral methods in shock dynamics, the snowplow mode 1 for $y \rightarrow 1$, asymmetrical shock propagation, asymptotic self-similar motions, implosion dynamics, blast scaling, far field effects and interaction with structures.
Professor Lee

305-621B ADVANCED MACHINING PROCESSES. Metal behaviour under cutting conditions. Machinability concept and application. Some design considerations of cutting tools; optimization of tool shape. Machining accuracy of NC machine tools. Recent developments in abrasive processes. Some theoretical and practical aspects of electrodischarge and electrochemical machining. Lasers in manufacturing. Surface integrity in unconventional machining. System approach in manufacturing.
Professor Kops

305-624A APPLIED PROCESS CONTROL. (Evening course). Hardware and software aspects of real time computers in process control and related applications. Fundamental hardware. Digital and analogue transducers, actuators, filters, interfaces and processors. Fundamental software: Process assembler language and machine architecture, real time operating systems, process oriented subsystems, interrupts, drivers, service routines. (an application assignment is given.)
Professor Zsombor-Murray and Mr. Vroomen

305-626B ADVANCED CONCEPTS OF ENGINEERING DESIGN. (Evening course). *Given in alternate years.* The Morphology of the Engineering Design Process. Systems Engineering: Formulation of the problem system; complex systems under constraints; applications to products, equipments and socioeconomic-technical systems. Models for the creative process. Algorithms for creative synthesis solution space, morphological analysis, separation of synthesis

and analysis, value engineering, synectics, boundary shifting. Feasibility analysis in the technical, economic and use environments. Modelling for simulation and optimization; choice of computer programs for continuous and stochastic models. Decision making and resource allocation. Utility functions, decision matrix, decision criteria and decision trees. Rational choice among alternative design strategies with probabilistic outcomes.
Professor Pfeiffer

305-632A STRESS ANALYSIS. (Evening course). Review of small displacement theory of elasticity. Variational principles and their applications. Stiffness matrix techniques and an introduction to the finite element method. Thermoelastic problems, deformation and flow theory of plasticity. Response characteristics of viscoelastic materials.
Professor Provan

305-635B FRACTURE AND FATIGUE. (Evening course). (Prerequisite: 305-632A). An introduction to the design aspects of fracture and fatigue, standard specimen fatigue, stress concentrations, crack initiation,linear elastic fracture mechanics, developments in non-linear fracture mechanics and low-cycle fatigue. Where appropriate, fractographic and probabilistic aspects of fatigue failure are discussed.
Professor Provan

305-642A SYSTEM DYNAMICS. (Evening course). Variational methods in mechanics. Hamilton's principle and the equations of motion of discrete engineering systems. Lagrangian formulations for discrete and continuous systems. General methods of discretizing continuous systems. Rigid body dynamics from Newtonian and Lagrangian points of view. Dynamic behaviour of linear and non-linear systems. Response of engineering systems to deterministic inputs by classical methods. Liapunov's definition of stability. Stability of linear systems.
Professors Paidoussis and Misra

305-643B VIBRATIONS IN ENGINEERING SYSTEMS. (Evening course). (Prerequisite: 305-642A). *Given in alternate years.* Review of analysis of linear continuous systems by classical methods. Response to deterministic and random excitation. Discretization of continuous systems; receptance, transfer-matrix, finite element, Galerkin methods. General linear algebra methods for linear systems; classical, numerical, matric-function techniques. Response of generalized systems to deterministic and randomloads. Application to slected mechanical, electrical and accoustical systems. Introduction to the analysis of nonlinear systems.
Professors Paidoussis and Misra

305-645B FINITE ELEMENTS IN DYNAMIC SYSTEMS. (Evening course). (Prerequisite: 305-642A). *Given in alternate years.* Concepts, mathematical tools and review of general pur pose finite element methods; derivation of stiffness and mass matrices; modelling of complex and built-up systems. Solutions of stress analysis problems. Formation of the dynamical matrix; eigenvalue analysis for large systems with many degrees of freedom. Consideration of damping and motion dependent forces. Time marching schemes.
Professor Misra

- **305-650A HEAT TRANSFER. (Evening course).** A study of more advanced topics in steady and transient heat flow by conduction, convection and radiation. New developments in heat transfer theory and techniques.
Staff

- **305-651B DESIGN OF HEAT TRANSFER EQUIPMENT. (Evening course).** The design of heat transfer equipment with special attention to the design of shell-and-tube heat exchangers, coolers, heaters, condensers; also, the design of air and gas heat exchangers for gas turbines. The main stress will be on the thermal aspects of the design but mechanical features will also be discussed.
Staff

- **305-652B DYNAMICS OF COMBUSTION.** Summary of basic thermodynamics, statistical mechanics, fluid dynamics and chemical kinetics. Conservation equations for multicomponent reacting systems. Interface boundary conditions. Diffusion flames, droplet and particle combustion. Steady laminar pre-mixed gas flames. Mechanisms of flame propagation. Flammability limits. Flame quenching. Non-steady phenomena in flames. Cellular structure. Steady and non-steady turbulent flames. Spray combustion. Detonative combustion. One-dimensional steady detonation waves. Initiation of detonation. Detonational instability and structure.
Professors Lee and Knystautas

305-654A COMPUTATION OF FLUID FLOW AND HEAT TRANSFER. The study of numerical methods for solving complex problems involving fluid flow and heat and mass transfer. A control-volume based approach is used in the formulation of the methods. Associated mathematical models for turbulence, chemical reaction and radiation are introduced and discussed.
Professor Baliga

305-700A, B, C DOCTORAL PRELIMINARY EXAMINATION.
Staff

305-722A,B SELECTED TOPICS IN MACHINING PROCESSES. (Prerequisite: 305-621B). A study of more advanced topics in metal cutting, abrasive processes and unconventional methods of machining. New trends and developments in material removal theory and techniques.
Professor Kops

- **305-734A MICROMECHANICS I.** (Prerequisites: 305-543A and 305-535B). Probabilistic concepts in Micromechanics. Stochastic functions and random processes. Statistical mechanics of structured solids. Microstates and governing equations of structural solids.
Professor Axelrad

- **305-735B MICROMECHANICS II.** (Prerequisite: 305-734A). Probabilistic deformation theory of structured solids. Review of deterministic kinematics. Models of structured solids. The Markovian approximation to the deformation process. Probabilistic constitutive theory and the material functional. Applications to polycrystalline solids and fibrous networks.
Professor Axelrad

- **305-745A ADVANCED DYNAMICS OF ENGINEERING SYSTEMS.** State vector analysis of engineering systems. Liapunov's stability analysis and application to stationary linear systems. General dynamic and Eulerian stability methods for linear distributed parameter systems. Selected topics in non-linear mechanics. Methods of analysis of non-linear systems. Introduction to aeroelastic phenomena and discussion of selected topics in aerohydroelasticity.
Professor Paidoussis

E13 DEPARTMENT OF METEOROLOGY

Burnside Hall
805 Sherbrooke Street West
Montreal, PQ
Canada H3A 2K6

STAFF

Professors - W.F. HITSCHFELD; S. ORVIG; R.R. ROGERS *(Chairman)*; E. VOWINCKEL
Associate Professors - J.F. DEROME: H.G. LEIGHTON
Assistant Professors - T. WARN: M.K. YAU
Emeritus Professor - J.S. MARSHALL

Advanced courses and research facilities are available for graduates in physical science or engineering who wish to undertake postgraduate study in Meteorology. The main research areas are the following: cloud physics and radar weather research, dynamic and numerical meteorology, and climatology. Facilities include the McGill Observatory, the Meteorology Library, the Radar Weather Observatory at Ste. Anne de Bellevue and extensive archives of meteorological and climatological records. There is ready access to the McGill Computing Centre. Financial assistance in the form of research or teaching assistantships is available for qualified students.

ADMISSION

Applicants for the M.Sc. program must meet the general requirements of the Faculty of Graduate Studies and Research and hold bachelor's degrees in Meteorology, Physics, Applied Mathematics, or equivalent, with high standing. The normal requirement for admission to the Ph.D. program is an M.Sc. degree in Meteorology or related discipline with acceptably high standing. Inquiries should be addressed directly to the Chairman, Department of Meteorology.

REQUIREMENTS

M.Sc. Degree

For most entering students, the program consists in the first year of the course 195-510A and all those numbered 195-651 to 195-665 except 656, which is taken in the second year. Research towards a thesis is ordinarily started after the spring examinations. Typically, the time required to complete the research and write a thesis is a full year, although in some cases the time can be shorter. Candidates entering with an honours B.Sc. in Meteorology can replace some of the courses with instruction in seminars and can commence their research without delay. Some of the course requirements may be waived for candidates with prior postgraduate training or experience in Meteorology.

Ph.D. Degree

The Ph.D. program consists of supervised research and courses as may be appropriate to develop the candidate's background. Within the first year of registration candidates are required to take the Ph.D. oral comprehensive examinations. The ordinary Faculty requirements concerning a thesis must be satisfied.

COURSES FOR HIGHER DEGREES

195-510A SYNOPTIC METEOROLOGY I. (3 hours). Analysis of scalar and vector fields. Kinematics of weather systems. Interpretation of satellite visual and infrared cloud photographs. Diagnostic studies of the development of middle latitude weather systems. Application of the vorticity and thermodynamic equations to studies of circulation systems.
Professor Derome

195-521B ATMOSPHERIC TURBULENCE. (3 hours). Application of statistical and semi-empirical theories of turbulence to the atmosphere. Includes: theories of isotropic turbulence and Kolmogorov's theory, turbulence in stratified media, surface and planetary boundary layers, turbulent diffusion and the dispersal of atmospheric pollutants.
Professor Warn

195-651D PHYSICAL METEOROLOGY. (2 hours; *Texts* - Mason, *Physics of Clouds;* Oxford; Kondratyev, *Radiative Heat Exchange in the Atmosphere:* Pergamon; Rogers, *A Short Course in Cloud Physics:* Pergamon). Thermodynamics of the atmosphere. Instability and convection. Cloud physics and storm structure. Radar applications. Solar and terrestrial radiation. Radiation calculations and diagrams. Energy budget of the atmosphere.
Professors Rogers and Leighton

195-652A ATMOSPHERIC DYNAMICS. (2 hours). The basic laws of fluid dynamics as applied to large scale atmospheric flows. Mechanics of deformable bodies, Navier-Stokes equations, similarity, vorticity and circulation, exact and approximate solutions, hydrostatic and quasi-geostrophic flows, boundary layers.
Professor Warn

195-662B NUMERICAL AND DYNAMICAL METEOROLOGY. (2 hours; *Text* - Haltiner, *Numerical Weather Prediction;* Wiley.) Wave solutions to the linearized equations of atmospheric flow: sound, gravity and Rossby waves. Barotropic and baroclinic instabilities. Numerical techniques for solving the nonlinear equations: finite difference and Galerkin approximations.
Professors Derome and Warn

195-653D CLIMATOLOGY. (2 hours: *Texts* - Sellers. *Physical Climatology:* Chicago; Critchfield, *General Climatology:* Prentice-Hall). The general circulation of the atmosphere and the ocean. Climatic classification. The heat and water balance, climatic change, numerical experiments.
Professors Orvig and Vowinckel

195-646B CURRENT WEATHER DISCUSSION. (2 hours). Half-hour briefing on the atmospheric general circulation and current weather.
Professor Vowinckel

195-655A SEMINARS "TOPICS IN METEOROLOGY". (1 hour). One-hour discussionson special topics in meteorology, e.g. hydrology, agricultural meteorology, meteorology and microwave communications, remote sensing, limits of predictability.
Professor Rogers and Staff

195-656D DAILY WEATHER DISCUSSION (2 hours). Half-hour briefing on atmospheric general circulation and current weather around the world using satellite data, radar observations, conventional weather maps, and analyses and forecasts produced by computer techniques.
Professor Vowinckel

195-664B ATMOSPHERIC COMPUTER MODELING. (4 hours). Computer methods for simulating atmospheric processes. Spectral and finite difference methods. Examples and projects from cloud physics, atmospheric dynamics, and climatology.

195-665B TOPICS IN METEOROLOGY. (1 hour). Seminars on special topics as in 655A.
Professor Rogers and Staff

195-670A,B READING COURSE IN METEOROLOGY. Assigned reading of a specialized topic with formal evaluation.
Staff

195-700D Ph.D. COMPREHENSIVE. (Cognate Subjects).

195-701D Ph.D. COMPREHENSIVE. (General).

195-751D SEMINAR IN PHYSICAL METEOROLOGY. (2 hours). A research seminar in topics in atmospheric physics.
Professors Yau and Hitschfeld

195-752D SEMINAR IN DYNAMIC METEOROLOGY. (2 hours). A research seminar on theoretical and numerical aspects of current general-circulation studies.
Professors Warn and Derome

195-753D SEMINAR IN CLIMATOLOGY. (2 hours). A research seminar in topics from synoptic and physical climatology.
Professors Vowinckel and Orvig

E14 DEPARTMENT OF MINING AND METALLURGICAL ENGINEERING

(Metallurgical)
Frank Dawson Adams Building
3450 University Street
Montreal, PQ
Canada H3A 2A7

(Mining)
McConnell Engineering Building
3480 University Street
Montreal, PQ
Canada h3A 2B4

STAFF

Professors - J.E. GRUZLESKI *(Chairman);* J.J. JONAS; G.W. SMITH: W.M. TELFORD; W.M. WILLIAMS.
Associate Professors - D.J. CROSSLEY; P.A. DISTIN; J.A. FINCH; J.E. GRUZLESKI; R.I. GUTHRIE; O.G. JENSEN; R.R. MacLACHLAN; W.T. THOMPSON; D. TROTTER; J.E. UDD
Assistant Professors - M. BILODEAU; A. LAPLANTE; N. PAPANICOLAOU; N. ROWLANDS; K. SZKLARZ

Special Lecturers - R.S. BOIRE; T.E. HAWKINS
NSERC University Research Associates - S. ARGYROPOULOS; R. HARRIS; F. MUCCIARDI

Graduate programs leading to the M.Eng., M.Sc. and Ph.D. degrees are available for research in Rock Mechanics, Mining Environments, Mineral Economics, Materials Handling, Applied Geophysics, Electrochemistry, Chemical and Process Metallurgy, Mineral Processing and related Surface Chemistry, Physical and Mechanical Metallurgy. Course programs leading to the M.Eng. (Option B) degree and the Diploma in Mining Engineering are also available.

Special programs are available for those holding degrees in subjects other than Metallurgy or Mining, e.g. Chemistry, Physics, Engineering, Geology, etc.

REQUIREMENTS FOR ADMISSION

Graduate Diploma in Exploration Geophysics

This one-year coursework program is intended to prepare graduate students for a career in exploration geophysics. Candidates should have a first degree in physics, geology or other suitable discipline.

The program consists of core courses dealing with modern methods of analysing and interpreting geophysical data, together with a number of electives (which the candidate will be able to select in consultation with the geophysics staff), and a one week field school.

Graduate Diploma in Mining Engineering

This Diploma is open to graduates of suitable standing in any branch of engineering or applied science. The Department provides a course of study during the academic year: this is normally followed by five months of approved experience within the mining industry. Candidates will be required to take an integrated group of courses, selected in consultation with the Department and bearing in mind their previous academic training.

M.Eng. (Option A) and M.Sc. Degrees

The M.Eng. degree is open to graduates holding the B.Eng. degree or its equivalent in Metallurgical Engineering, Mining Engineering, Geophysics or related fields. The M.Sc. degree is open to graduates holding the B.Sc. degree or its equivalent in Metallurgy, Geophysics, Geology or related fields. In both cases, at least a high second class standing at the undergraduate level is required.

A candidate must pass courses assigned by the Department. These will be selected from courses offered by the Department and cognate courses given by other departments. The selection will be based upon a consideration of the student's previous training and research interests.

A candidate will be required to participate in an appropriate Research Seminar course.

A candidate must submit an acceptable thesis based upon research successfully completed by the candidate.

M.Eng. (Option B) Degree

The first year of the program includes four months approved experience within the mining industry, and eight months of academic study at McGill University. The academic program has been designed to advance diversely-trained graduates to a uniform level of postgraduate academic proficiency within the Mining Engineering discipline and to provide them with the important concepts and analytical techniques necessary for a more problem-oriented second year. The second year provides a sequence of advanced courses, detailed below, together with a dissertation which is handled as an individual research project throughout the academic year.

Applicants with a degree in Mining Engineering will be considered for admission to a twelve month program leading to the same degree.

The courses required in the second year are selected from the following:

306-602D HUMAN RELATIONS IN THE MINERAL INDUSTRY

306-604D MANAGEMENT-LABOUR RELATIONS

306-606D MINERAL/METAL PRODUCTION

306-608D THE MARKETING OF MINERAL PRODUCTS

306-622D MINING ENVIRONMENTS

306-623D GROUND CONTROL AND FRAGMENTATION

306-624D MATERIALS HANDLING IN MINES

306-625D MINERAL INDUSTRY ECONOMICS

306-626D ANALYSIS OF QUANTITATIVE DATA

306-627D MINERAL INDUSTRY DECISION MAKING

306-628D DISSERTATION

306-635A,B INTERPRETATION METHODS IN APPLIED GEOPHYSICS

306-636A,B TIME-SERIES ANALYSIS: ADVANCED GEOPHYSICAL APPLICATIONS

306-637A,B THE INVERSION OF GEOPHYSICAL DATA

306-640D ADVANCED MINERAL PROCESSING

306-672D ROCK MECHANICS SEMINAR

Ph.D. Degree

A candidate for this degree must normally hold an acceptable Master's degree in Metallurgy, Metalurgical Engineering, Mining Engineering, Geophysics, or a related field. The Ph.D. degree will be awarded inthe appropriate field.

A candidate must pass courses assigned by the Department. These will be selected on the basis of the student's previous training and research interests.

A candidate will be required to participate in an appropriate Research Seminar course.

Candidates are expected to take a preliminary examination within the first year of their Ph.D. registration.

A candidate must submit an acceptable thesis based upon research successfully completed by the candidate and must satisfy the examiners in an oral examination of the thesis and related topics.

A candidate must also satisfy general faculty regulations relating to Ph.D. degrees.

COURSES FOR HIGHER DEGREES

The courses in this department have been renumbered to conform with the following classification system. The first three numbers (i.e. 306) are the department code. The next digit is the level of instruction. The last two digits are classified as follows:

01 to 29	**general mining courses.**
30 to 39	**geophysics courses.**
40 to 49	**mineral processing courses.**
50 to 59	**extractive and process metallurgy courses.**
60 to 69	**physical metallurgy courses.**
70 to 79	**seminars.**

GRADUATE COURSES OFFERED BY THE DEPARTMENT

306-520A STABILITY OF ROCK SLOPES. 3(2-3-4). (Prerequisite: permission of instructor). The properties of rock masses and of structural discontinuities. Influence of geological structure on stability. Linear, non-linear, and wedge failures. Site investigations. Methods of slope stablization.
Professor Udd

306-521B STABILITY OF UNDERGROUND OPENINGS. 3(2-3-4). (Prerequisite: permission of instructor). The properties of rock masses and stability classification systems. The influence and properties of geological structural features. Stability related to the design of underground openings and mining systems. Site investigations. Methods of stabilization.
Professor Udd

306-522A GEOSTATISTICAL MINERAL RESERVE ASSESSMENT. 3(3-2-4). (Prerequisite: 306-326B or equivalent and consultation with instructor). Introduction and review of conventional grade and tonnage assessment techniques; elements of geostatistical theory and techniques and their application in reserve calculations, mineral deposit modelling and mining operations.
Professor Bilodeau

306-523A STATISTICAL AND ECONOMIC APPLICATIONS IN MINERAL EXPLORATION PLANNING. 3(3-2-4). (Prerequisites: 300-310A,B and 300-208A,B or equivalents). Application of statistical and economic analysis techniques in planning mineral exploration strategies. Introduction to probabilities and statistics; statistical decision theory; regional mineral resource appraisal; exploration economics and strategies; grade-tonnage estimation techniques; delineation investment decisions.
Professor Bilodeau

306-531A GRAVITY AND MAGNETIC EXPLORATION METHODS. 3(2-3-4). (Prerequisite: 306-230B or equivalent and consultation with instructor). Applications of gravity and magnetic methods in petroleum and mineral exploration with particular emphasis on instruments, field methods and interpretation of results.
Professor Telford

306-533B ELECTRICAL PROSPECTING METHODS. 3(2-3-4). (Prerequisite: 306-230B or equivalent and consultation with instructor). Applications of electrical methods in petroleum and mineral exploration with particular emphasis on instruments, field operations and interpretation of results.
Professor Telford

306-535A SEISMOLOGY. 3(2-3-4). (Co-requisite: 306-332A or equivalent and consultation with instructor). Theory of seismic wave propagation, application of seismology in petroleum and mineral exploration: instrumentation, data acquisition, analysis and interpretation.
Professor Jensen

306-536B RADIOACTIVE AND WELL LOGGING METHODS. 3(2-3-4). (Prerequisite: 306-230B and consultation with instructor). Seismic methods in mineral explorationand engineering geophysics. Radioactivity method, instrumentation and interpretation of results. Well logging techniques with particular emphasis on instrumentation, interpretation of petroleum well logs, application in mineral exploration areas.
Professor Telford

Courses at the 6 and 7 hundred level require about 3 contact hours per week per semester or equivalent.

306-602D HUMAN RELATIONS IN THE MINERAL INDUSTRY.

(A) **ORGANIZATIONAL HUMAN BEHAVIOUR.** A general study of the interrelationships of human, social, technical and organizational forces which underlie actions and procedures of people at work.

(B) **MINING ORGANIZATIONAL PROBLEMS.** Organizational structures: performance assessments; procedures re employee selection, promotion, communication, operational problems; principles of job control and job training; inter-personal relationships.
Mr. Hawkins

306-604D MANAGEMENT-LABOUR RELATIONS. History and character of Canadian and U.S. labour movements; problems of labour relations under collective bargaining processes; management-union relationships; public policy; critical national negotiations.
Mr. Hawkins

306-606D MINERAL/METAL PRODUCTION. Mining and metallurgical techniques and processes employed in the production of minerals and metals.
Metallurgy Staff

306-608D THE MARKETING OF MINERAL PRODUCTS. Short and long term supply/demand/price characteristics of minerals and metals and factors responsible for their variability.
Mining Staff

306-620A ROCK MECHANICS I. A study of the effects of rock properties and ground stresses on problems of mine design.
Professor Udd

306-621B ROCK MECHANICS II. (2 hours, alternate weeks, 3 hours laboratory). The application of the principles of strength of materials to the analysis of problems of ground control.
Professor Udd

306-622D MINING ENVIRONMENTS. Health, safety and engineering aspects of the mining environment; radiation hazards and control; airborne contaminants and ventilation; design principles for dust control and air conditioning systems; fan theory and application; illumination theory and design; control of noise and vibrations.
Professor Trotter

306-623D GROUND CONTROL AND FRAGMENTATION. Principles and theory of explosives, rock information systems, cratering concepts and applications to mining.
Professor MacLachlan

306-624D MATERIALS HANDLING IN MINES. A study of currently feasible materials handling systems for open pit and underground mines. Emphasis on criteria for selection and the influence of selected systems upon mine design.
Professor Trotter

306-625D MINERAL INDUSTRY ECONOMICS. Decision-making problems in the mineral industry, including the mine development decision, economic problems confronting the mining company - corporate planning, exploration strategy, mine finance and mineral market forecasting - and mineral policy problems (such as taxation and regional development).
Professors Bilodeau and Papanicolaou

306-626D ANALYSIS OF QUANTITATIVE DATA. Ore reserve estimation techniques with the emphasis on geostatistical methods for determining ore body characteristics for mine planning.
Professor Bilodeau

306-627D MINERAL INDUSTRY DECISION-MAKING. Course deals with negotiations involved in the development of minerals, government policy considerations and the financing and implementation of mineral projects.
Mining Staff

306-628D DISSERTATION. A comprehensive study of mineral technology or economics applied to specific minerals industry cases.
Mining Staff

306-631A,B PRACTICAL GEOPHYSICS TRAINING. (1 week field school). Practical instruction in the operation of exploration geophysical equipment under field conditions.
Geophysics Staff

306-635A,B INTERPRETATION METHODS IN APPLIED GEOPHYSICS. (Prerequisites 306-531A, 533B and 536B or equivalent and consultation with instructor). Analysis of geophysical data in magnetic, gravity, electrical and radioactivity prospecting. Case histories.
Professor Telford

306-636A,B TIME-SERIES ANALYSIS: ADVANCED GEOPHYSICAL APPLICATIONS. (Prerequisite: 306-332A or equivalent and consultation with instructor). Time-series analysis of geophysical data. Applications in seismology and electrical, electromagnetic, magnetic, gravity and radiometric prospecting will be disclosed.
Professor Jensen

306-637A,B THE INVERSION OF GEOPHYSICAL DATA. (Prerequisite: 306-332A or equivalent and consultation with instructor). Selected topics in data interpretation covering ambiguity, exact inversion, the iterative improvement of solutions, generalized linear inversion, ridge-regression and constrained inversion. Emphasis will be on the application of techniques using computer algorithms.
Professor Crossley

306-640D ADVANCED MINERAL PROCESSING. Modern advances in mineral processing techniques.
Professors Finch and Laplante

306-641D MINERAL DRESSING AND MILL DESIGN. Physical and chemical treatments for the recovery of valuable minerals in ore. The application of techniques embodying gravity concentration, electrostatic and magnetic separations, and flotation with emphasis on mill design.
Professors Finch and Laplante

306-642D MINERAL DRESSING. Mineral separations and recoveries by flotation. Studies of sorption processes and surface reactions.
Staff

306-650D TRANSPORT PHENOMENA IN PROCESS ENGINEERING METALLURGY. Theoretical studies of selected processes for the smelting and refining of metals. Metallurgical applications of heat, mass and momentum transfer theories.
Metallurgy Staff

306-651D TOPICS IN CHEMICAL METALLURGY. Applications of physical chemistry to extractive metallurgy with emphasis on computing methods in thermodynamics and electrochemistry.
Professor Thompson

306-653A,B TRANSPORT PHENOMENA IN PROCESS METALLURGY. Process metallurgical applications of heat, mass and momentum transport theories. Methods of numerical solution in the analysis of: continuous casting, ingot solidification, soaking pits, hot mill operations, alloy addition methods in steel-making, etc. Students are assigned individual computer projects and present a report plus seminar on their findings.
Professor Guthrie

306-655A,B ADVANCED METALLURGICAL PROCESS ANALYSIS. Metal extraction processes are analysed from the standpoints of metals recovery, raw materials usage and energy requirements. Techniques which can be used to minimize energy consumption are examined in detail. Optimization models are developed. Students examine and report on the metallurgical and economic feasibility of recently developed processes.
Metallurgy Staff

306-660D APPLIED X-RAYS. (4 hours per week). X-Ray diffraction methods and their application to chemical analysis, alloying, grain size determination, preferred orientations, deformation, annealing and single crystal studies; fluorescence analysis; introduction to radiography and microradiography; electron probe micro-analysis.
Professor Smith

306-661B ADVANCED METALLURGICAL DESIGN. A discussion and laboratory course, supplemented by detailed written reports, dealing with metallurgical design problems. Special attention will be given to problems in corrosion, weld design, casting, prevention of metal fatigue, heat effects and materials selection.
Professor Williams

306-662B CRYSTAL GROWTH AND SOLIDIFICATION OF METALS. The kinetics of freezing and the structure of the solid-liquid interface. Methods of single crystal growth; growth imperfections in single crystals. Dendritic freezing in pure materials. Alloy freezing and the redistribution of solute, morphological stability during freezing, Eutectic freezing with particular reference to cast irons.
Professor Gruzleski

306-663A DEFECT STRUCTURE AND MECHANICAL PROPERTIES OF METALS. Elastic compliances and rigidities; stress and strain deviators; yield criteria; vacancies and diffusion; topology of dislocations and stacking faults; self-energy of dislocations; dislocation interactions with point, line and surface defects; plastic deformation of single crystals and polyl-crystals; work hardening and recovery processes.
Professor Jonas

306-664B THERMAL AND ATHERMAL DEFORMATION PROCESSES. Empirical approaches to experimental results; elementary rate theory; introduction to activation free energies, enthalpies and entropies; physical significance of activation areas and volumes; experimental determination of activation parameters; rate theory applied to high temperature deformation; periodic internal stress models; rate theory applied to low temperature deformation; athermal deformation processes.
Professor Jonas

306-670D RESEARCH SEMINAR. For students registered for a Master's degree in Metallurgy.
Metallurgy Staff

306-672D ROCK MECHANICS AND GEOPHYSICS SEMINAR. Course covers theoretical and practical aspects of ground control practice using the case-study method.
Professor Udd

306-673D MINING ENGINEERING SEMINAR. For students registered in the Diploma or M.Eng. (Option E) program.
Mining Staff

306-674D EARTH PHYSICS. Students and staff members will present selected and current topics under the following general headings; cosmology; seismology; earth's gravity, magnetic and electric fields; thermal history; tectonophysics; celestial mechanics.
Geophysics Staff

306-675D APPLIED GEOPHYSICS SEMINAR. Case histories in petroleum and mineral exploration; well-logging methods; geophysical methods ap-

plied particularly to mining and civil engineering problems. (Course given in collaboration with Ecole Polytechnique.)
Geophysics Staff

306-765D TOPICS IN ADVANCED PHYSICAL METALLURGY. Topics selected from recent research in physical metallurgy.
Metallurgy Staff

306-766A,B STRENGTHENING AND FRACTURE OF METALS. Strengthening mechanisms in metals: superalloy and order hardening, solute, precipitate, and dispersion hardening, grain boundary and sub-boundary hardening; theories of lattice friction; discontinuous yielding and dynamic strain aging; grain boundary sliding, dynamic recrystallization and superplasticity; mechanisms of ductile and brittle fracture.
Professor Jonas

306-771D RESEARCH SEMINAR. For students registered in a Ph.D. program in Metallurgy.
Metallurgy Staff

306-776D MINING RESEARCH SEMINAR. For students registered in a Ph.D. program in Mining.
Mining Staff

Undergraduate Courses

The following undergraduate courses are available to graduate students who have not taken an equivalent course:

306-216B MINING ENGINEERING TECHNIQUES
Professor MacLachlan

306-321B BEHAVIOUR OF ROCK STRUCTURES
Professor Udd

306-327A MATERIALS HANDLING
Professor Trotter

306-328B MINE ENVIRONMENTS
Professor Trotter

306-332A MATHEMATICAL APPLICATIONS IN GEOPHYSICS
Professor Crossley

306-334B POTENTIAL THEORY IN GEOPHYSICS
Professor Jensen

306-420A MINING FEASIBILITY STUDIES I
Mining Staff

306-421B MINING FEASIBILITY STUDIES II
Mining Staff

306-422A APPLIED EXPLOSIVES
Professor MacLachlan

306-423A MINERAL INDUSTRY ECONOMICS I
Professor Bilodeau and Mr. Boire

306-424B MINERAL INDUSTRY ECONOMICS II
Professor Bilodeau

306-425B MINE PLANNING
Professor Trotter

306-445B MINERAL SEPARATION II
Professor Laplante

E15 CENTRE FOR NORTHERN STUDIES AND RESEARCH

Purvis Hall
1020 Pine Ave. West
Montreal, PQ
Canada H3A 1A2

STAFF

Director - Professor J.M. CRAM
Associate Director (Research) - DR. PAUL F. WILKINSON
Senior Research Associate - DR. ALAN COOKE

The Centre initiates, encourages and co-ordinates McGill based research and training related to the North. It has close links through the library and information network with the three other Québec northern research centres and is a member of the Association of Canadian Universities for Northern Studies.

Facilities are provided for field training and research at the Subarctic Research Station, Schefferville, Québec and at the McGill-Axel Heiberg Research Station in the high arctic.

The Centre is particularly active in research and training programmes related to the Native people of Northern Québec and the Eastern Arctic. Diploma students are encouraged to develop a continuing interest in the North and to follow careers related to it. A number of field fellowships are awarded annually.

GRADUATE DIPLOMA IN NORTHERN STUDIES

The Centre offers a one-year program leading to a Graduate Diploma in Northern Studies.

The Diploma Program is open to university graduates who have followed a number of undergraduate courses relevant to one of the subject areas in the program.

ADMISSION

Applicants to the Diploma Program must have completed an undergraduate degree with academic standing equivalent to a cumulative grade point average of 2.8 out of 4, and concentration in one of the subject areas in the program. Work experience may be taken into consideration in lieu of the required concentration of undergraduate course work. Letters of recommendation will be required in support of the application. Application forms may be obtained by writing to the Centre. Completed applications which reach the Centre before May 14, 1982 will be given preference. Candidates for the Diploma will be required to complete the following courses.

COURSES

For graduate students not enrolled in the Diploma Program, permission of the student's advisor and of the Director is required.

197-602A NORTHERN LAND MASSES. Continental structure and formation of the polar basin; Geomorphology and glaciology - soils and permafrost; Mineral resources - oil and gas potential and exploitation; Effects of permafrost on construction-buildings, roads and pipelines.

197-603A PHYSICAL ENVIRONMENT OF THE NORTH. The weather - causes and variability; The seas - bathymetry, watermasses and currents; Sea Ice - characteristics and coverage, effects on shipping; Icebergs and ice islands; Climatic change.

197-604A NORTHERN ECOLOGY AND RENEWABLE RESOURCES. Structure and function of northern ecosystems; Plant and animal distributions, seasonality, migrations; Fish and fisheries - present and potential exploitation; Marine and terrestrial mammals - game management and the fur industry; Principles and practice of environmental impact assessment case studies.

197-605B PEOPLES OF THE NORTH AND NORTHERN ADMINISTRATION. Origins and dispersion - demography; Initial contacts with Europeans - the fur trade; Cultural history - religion, art and folklore; The modern phase-political development, native organizations and employment; Political geography - historical background, defence; Government structures - international comparisons, Canadian territorial, provincial and federal roles; The law - native land claims, exploration and resource development; Education and health - educational programs and medical services.

197-606B THE NORTHERN ECONOMY AND MODERN TECHNOLOGY. Transportation - roads and pipelines, air and sea transport; Communications - the impact of satellite communication systems; Town planning and settlement patterns - waste disposal, energy supplies and the quality of northern life; Tourism and recreation.

197-680D NORTHERN STUDIES RESEARCH PROJECT. (Open only to students in the Northern Studies Diploma Program.)

197-690A SEMINAR IN NORTHERN STUDIES I. (2 credits). Weekly seminars on selected aspects of northern research and development in the natural and social sciences; with an emphasis on interdisciplinary topics.

197-690B SEMINAR IN NORTHERN STUDIES II. (2 credits). Weekly seminars on selected aspects of northern research and development in the natural and social sciences; with an emphasis on interdisciplinary topics.

E16 INSTITUTE OF OCCUPATIONAL HEALTH AND SAFETY

Charles Meredith House
1130 Pine Avenue West
Montreal, PQ
H3A 1A3

STAFF

Professor – J. CORBETT MCDONALD *(Director)*
Associate Professor – M.I. ARHIRII
Assistant Professors – I.F. HUNG; B. PATHAK
Auxiliary Professors – G.W. GIBBS; P.V. PELNAR *(Institute of Occupational and Environmental Health);* P.C. ROHAN *(INRS-Santé, U. du Québec);* J. SIEMIATYCKI *(Institut Armand Frappier)*
Lecturer – P.R. JANES
Research and Professional Associates – M. DUBEAU; M. ROSS
Associate Members – M.R. BECK-LAKE; D. DOELL; C.Y. HWANG, F.D.K. LIDDELL *(Epidemiology and Health);* A.D. MCDONALD *(Epidemiology and Health, IRSST);* D. ECOBICHON *(Pharmacology and Therapeutics);* N. ROWLANDS, D. TROTTER *(Mining and Metallurgical Engineering);* R. MUNZ *(Chemical Engineering);* C. STEINBERG *(Faculty of Management)*

GRADUATE DIPLOMA PROGRAMS

The Institute offers a one year Graduate Diploma program in Occupational Hygiene designed to introduce the student to the principles of the discipline and to provide the specialized knowledge necessary for the recognition, evaluation and control of health hazards at the work place.

Starting with the academic year 1982-83, a Graduate Diploma program in Occupational Health will be offered for training physicians and other health professionals necessary for occupational health services and related research.

ADMISSION

Candidate should have completed, with high academic standing, a bachelor's degree, or equivalent, in a relevant discipline (such as: biology, chemistry, engineering, or physics for the diploma in Occupational Hygiene; medicine, nursing, psychology, etc., for the diploma in Occupational Health). They will be required to submit with their application letters of recommendation, and may be invited for an interviews.

REQUIREMENTS

All students are required to successfully complete a minimum of 10 half-courses (i.e. 30 credit units). Each student is also expected to satisfactorily complete a short internship in a local industry or occupational health service.

Any student wishing to be exempted from a course may have to take an examination in that subject. A comprehensive examination will be held at the end of the course program.

GRADUATE COURSES

392-602A OCCUPATIONAL HEALTH PRACTICE. The course, which includes lectures, discussions and practical sessions, will analyse the functions and organization of occupational health programs and services.

392-603A OCCUPATIONAL EPIDEMIOLOGY AND STATISTICS. Lectures and practical sessions to provide students with basic knowledge of epidemiology and statistics as applied to occupational health.

392-604A MONITORING MAN AND HIS ENVIRONMENT. A course presenting through examples from a wide range of occupational settings, the basic concepts of measurement, instrumentation, sampling strategies, recording and analysis of data for the purpose of environmental and biological monitoring.

392-605B CONTROLLING HEALTH EFFECTS AT WORK. A course designed to introduce the student to the various approaches (administrative, medical, engineering. . .) in the prevention and control of factors affecting health at work. Examples are presented from various industries involving physical, chemical and biological hazards.

392-606D OCCUPATIONAL HEALTH AND HYGIENE SEMINARS. Seminar discussions on a variety of subjects related to the content of the Occupational Health and Hygiene programs involving faculty and guest speakers.

392-607B PARTICLES AND THEIR HEALTH EFFECTS. Lectures and practical sessions dealing with the generation and aerodynamic behaviour of particles, their respirability, the evaluation of physico-chemical characteristics and exposure levels, tissue response and health effects of dusts, mists and fumes.

392-608B CHEMICAL HAZARDS. The course will describe the health effects of the most common chemical substances encountered in work places, and the methods used for measurement and control, as well as the safe handling of toxic materials. The course will involve practical sessions.

392-609B NOISE AND VIBRATION. The course will introduce the student to the study of health effects, techniques of measurements and methods of control of industrial noise and vibration. Practical exercises will be carried out.

392-610B RADIATION. The objectives of the course are to introduce the student to the types ($\alpha, \beta, \gamma, \chi$) quantities and units, dosimetry, control and protection against ionizing and non-ionizing radiation (e.g. microwaves) in industrial and other work places. The course will involve practical work.

- **392-611B LIGHTING IN INDUSTRY.** This course is designed to provide an introduction to the Occupational Hygiene aspects of lighting in the work place, including specific applications in mining, effects on safety, morale and productivity, advantages and disadvantages of different methods of lighting. The course will involve practical exercises.

392-612B PRINCIPLES OF TOXICOLOGY. Lectures and practical sessions on selected topics, including acute, subacute and chronic toxicity assessment, pharmaco-kinetics and pharmacodynamics, mutagenicity, carcinogenicity and teratogenicity.

- **392-613B BIOLOGICAL HAZARDS.** This course will acquaint the students with microbiological agents associated with diseases of various occupational groups, the physical and biological characteristics of microbial and biological agents, sampling and identification techniques, environmental factors influencing the viability and infectivity of microorganisms, health effects, preventive and control measures.

392-614B SPECIAL TOPICS IN OCCUPATIONAL HYGIENE. Selected readings and practical sessions to suit the needs of individual students.

- **392-615B INDUSTRIAL SAFETY.** The course covers the principles of industrial safety, causal factors and characteristics of industrial accidents, accident recording and information systems, the

methods and processes of industrial accident prevention, application of system safety analysis to industrial accident prevention and case studies of industrial accident prevention programs.

- **392-618 PRINCIPLES OF INDUSTRIAL VENTILATION.** A course presenting the student with the basics of design and evaluation of ventilation, fume extraction and industrial air quality control systems. Practical exercises in the design of extraction or filtration systems will be undertaken.

392-619D FIELD WORK. Field visits, practical work and personal studies to familiarize students with occupational health and hygiene practices in the community. Each student is required to maintain a 'daybook' for submission at the end of the course.

392-621B SURVEY DESIGN AND ANALYSIS. This is a seminar course in which each student is required to design, and outline methods of analysis, for a descriptive, analytic or evaluative epidemiological survey to solve a problem in occupational health. Each student proposal will be discussed in detail by class members and staff.

392-622B MEASUREMENT OF HEALTH, FUNCTION AND DISABILITY. This course consists of lectures and practical sessions on clinical, physiological and laboratory methods for the assessment of health and working capacity. The use of these procedures for surveys, preplacement, monitoring and compensation will be discussed.

513-616A OCCUPATIONAL HYGIENE. The course consists of lectures and seminars, field visits and practical work designed to provide students with the necessary skills to identify and measure hazardous agents in the work environment as well as knowledge of toxicology and environmental control.

513-617A OCCUPATIONAL DISEASES. This course provides basic knowledge of the distributions and mechanisms of occupational diseases, poisonings and disability.

E17 INSTITUTE OF OCEANOGRAPHY

3620 University Street
Montreal, PQ
Canada H3A 2B2

STAFF

Professors - M.J. DUNBAR *(Biology);* E.R. POUNDER *(Physics);* M.P. LANGLEBEN *(Physics);* J.B. LEWIS *(Director, Redpath Museum) (Vice-Chairman);*

Associate Professors - B.F. d'ANGLEJAN; R.G. INGRAM *(Chairman);* H.M. REISWIG *(Redpath Museum);* F. SANDER *(Director, Bellairs Research Institute).*

Assistant Professor - B.M. MARCOTTE

Associate Members - M.E. GOLDSTEIN *(Biology);* R. HESSE *(Geology);* ROGER KNOWLES *(Microbiology);* E.W. MOUNTJOY *(Geology);* S. ORVIG *(Meteorology)*

Graduate students will take such courses, including courses inother departments, as are considered necessary for their training and for the development of the particular fields of specialization. All students are expected to take core courses required by the department. Primary emphasis for both the M.Sc. and Ph.D. degrees is placed upon research and thesis presentation. The comprehensive examination for the Ph.D. candidates usually takes place at the end of the second year of study. It covers the whole field of marine science but allows for the specialized interests and training of each student, in Botany, Zoology, Microbiology, Physics or Geology.

Students are accepted on the basis of a 3.0 Cumulative Grade Point Average in an appropriate subject, or high standing in general science; a qualifying year in addition to the minimum degree requirement may be necessary, at the discretion of the Chairman. Decisions on acceptance are made by 31 March and 31 October of each year for the fall and winter terms respectively. It is preferable to enter in the fall.

The Institute of Oceanography is interdepartmental in scope, emphasizing the interdisciplinary nature of Oceanography. Excellent laboratory and library facilities are available for research, and opportunities for field work exist in the Arctic, the estuary of the St. Lawrence river, the Gulf of St. Lawrence, the Canadian Eastern Seaboard, and at the Bellairs Research Institute at Barbados. The special research interests of the Centre include the physics of sea ice, the energy exchange between the atmosphere and hydrosphere, marine climatology, the physical oceanography, marine geology and geochemistry of estuaries and coastal waters, growth and life cycles of marine organisms, marine productivity and marine biogeography.

The Redpath Museum of McGill University offers teaching and research facilities in marine biology and keeps extensive plankton collections.

COURSES FOR HIGHER DEGREES

Advanced Undergraduate Courses

198-309A DESCRIPTIVE OCEANOGRAPHY. (3 hours). Major physical and chemical properties of sea water; methods of measurements, space and

time distribution. The geostrophic approximation and the dynamic method. General features of the oceanic circulation.
Professor d'Anglejan

198-319B DYNAMIC OCEANOGRAPHY. (3 hours). Equations of motion, geostrophy, diffusive processes, boundary layers, wind-driven circulation, gravity waves, thermohaline circulation, Kelvin waves, tides in oceans and estuaries, general field techniques.
Professor Ingram

177-442D BIOLOGICAL OCEANOGRAPHY. (3 hour lectures and laboratory). Physical and chemical parameters of the environment and their influence on marine life; ecological divisions of the ocean; descriptions of marine life; plankton biology and biogeography; history and methods of marine research; ecology of benthic organisms; primary and secondary production in the ocean; marine fisheries; marine microbiology; pollution; migration.
Professors Dunbar, Lewis and Marcotte

Graduate Courses

395-537B ADVANCED INVERTEBRATE ZOOLOGY. (3 hours). Descriptions of selected marine invertebrate taxa. Functional morphology, ecology and evolution. Feeding mechanisms; reproductive patterns; interactions with other marine organisms; laboratory techniques.
Professors Marcotte and Reiswig

395-591D ADVANCED MARINE ECOLOGY. (2 hour seminar). Primary and secondary production; physiological ecology, population dynamics, distribution analysis, and diversity of marine organisms.
Professor Marcotte

395-620B READING COURSE IN PHYSICAL OCEANOGRAPHY.
Professor Ingram

395-639A TROPICAL MARINE ECOLOGY. (2 hour lectures and laboratory). The ecology of marine organisms and marine communities of tropical oceans.
Professor Lewis

395-660D SEMINAR IN GENERAL OCEANOGRAPHY. (2 hours). Advanced seminar course on research in salt water environments, with emphasis on contemporary work. Discussion of the original literature, recent advances and basic theory.
Staff

395-692A ESTUARIES. (3 hours). Classification of estuaries; mixing processes in stratified fluids; salt balance; dynamic balance; flushing; circulation theories; application to the distribution of other water properties, such as nutrients, suspended matter and pollutants; measurement techniques.
Professor Ingram

395-696A SEMINAR COURSE IN PHYSICAL OCEANOGRAPHY. (2 hours). Theoretical aspects of oceanic, estuarine and near-shore dynamics.
Professor Ingram

395-697B MARINE GEOLOGY AND GEOCHEMISTRY. (3 hours). Geochemistry of pelagic deposits in relation to terrigenous sources, life processes and sea water composition. Deep sea stratigraphy; methods of correlation; the sedimentary record.
Professor d'Anglejan

395-698B TOPICS IN OCEANOGRAPHY. (3 hours). Interdisciplinary studies of advanced topics selected by both staff and students including: waves and tides, estuaries, short and long term cycles, factors controlling the vertical distribution of organisms, particulate matter and sedimentation.
Staff

395-721D SEDIMENTS AND MARINE GEOLOGY. (2 hour seminar lectures and assignments). Classical and recent research concerning principles of sedimentation, sedimentary environments including deltas, tidal flats, continental shelf and slope, geosynclines, ocean basins, submarine canyons, ocean currents, turbidity currents, sediment geochemistry, reefs, ocean structure.
Professors d'Anglejan, Hesse and Mountjoy

E18 DEPARTMENT OF PHYSICS

Ernest Rutherford Physics Building
3600 University Street
Montreal, PQ
Canada H3A 2T8

STAFF

Emeritus Professor - J.S. MARSHALL
Professors - N.B. de TACKACSY *(Chairman);* R.E. BELL; M. COHEN *(Therapeutic Radiology/Physics);* A. CONTOGOURIS; S. DAS GUPTA; F.T. HEDGCOCK; W.F. HITSCHFELD; J.E. KITCHING; C.S. LAM; M.P. LANGLEBEN; J.K-P. LEE; B. MARGOLIS; S.K. MARK; W.M. MARTIN *(Assistant Chairman);* R.B. MOORE; E.R. POUNDER; J.M. ROBSON; P. PATEL; R.T. SHARP; D. RYAN; D.G. STAIRS; E.J. STANSBURY; D.R. STEVENSON; P.R. WALLACE; D. WALSH; M.J. ZUCKERMANN
Associate Professors - J.R. ADDISON; G.L. AUSTIN; J.E. CRAWFORD; R. HARRIS; R. HENZI; T.F. MORRIS; W.B. MUIR; J.O. STROMOLSEN; J.M. TRISCHUK

NSERC University Research Fellow - B.J. JENNINGS

FIELDS OF RESEARCH

High-Energy Physics

Theoretical: The interests of the McGill high energy theorists cover a wide range of problems in the field. Mainly the group deals with the strong, electromagnetic and weak interactions of strongly interacting particles treated as quark-gluon systems. The research program ranges from studies closely connected with experimental data to purely theoretical questions. Our calculations of the production of heavy quark systems have been used extensively in the planning of the future experimental program for the Tevatron (1000 Billion Volt accelerator) at the Fermilab. We are much involved in theoretical studies of diffraction, quantum chromodynamics, solitons and group theory.

Experimental: Two experiments are in progress at Fermilab. One experiment has successfully determined the life times of a number of charmed mesons produced by high enery neutrinos interacting in nuclear emulsion. A second experiment studies the production of muon pairs with masses greater than 4 GeV/c^2 produced in the interactions of high energy antiprotons with nuclei. These successful experiments address questions of fundamental importance in high energy physics: the weak interactions of charmed particles in the first case and the dynamics of quarks and gluons in the second case. New proposals are in preparation to extend these measurements into related areas of high current interest in the field. The muon pair experiment will be adapted to permit the study of the production of Charmonium states decaying radiatively to the $J\psi$. A measurement of direct photon production will be possible with the same apparatus. A new experiment in electron-position colliding beams will be undertaken at the Doris Machine in Hamburg. This experiment will study the decays of states carrying the b quantum number.

Ice Physics

Interest centres on ice dynamics - response of floating ice to wind, current and tide. Measurements are made using the sea ice of the Arctic as a platform for oceanographic instruments - current meters and salinity-temperature-depth sensors. Present work is on determination of water transport in various passages between the islands of the Canadian Arctic Archipelago.

Nuclear Physics

Theoretical: Relativistic heavy ion collisions, nuclear structure including problems in nuclear spectroscopy of medium nuclei, semi classical and statistical methods in nuclear physics.

Experimental (Foster Radiation Laboratory): The research program centres around an upgraded synchrocyclotron, which accelerates protons, deuterons, helium-3 and alpha particles up to 100, 50, 135 and 100 MeV, respectively. The main theme of current activities is on the study of nuclei lying far from the region of beta stability, using high speed pneumatic systems, on-line isotope separator and superconducting beta ray spectrometer. Nuclear properties being studied include the identification of new nuclides, level structure and electromagnetic properties as a function of N or Z, high spin states, mass systematics and mass equations, beta decay and the weak interaction, and the fission process.

Experimental (Neutron physics): The experimental program is based on the McGill beam of very slow neutrons at a high flux nuclear reactor at the Chalk River Nuclear Laboratories. This beam has been equipped with a time of flight spectrometer and is now being used to measure total neutron cross sections of a variety of materials in the range of neutron velocities from 4 to 25 meters per second. Students in this program do their experimental work at Chalk River, Ontario but analyse their data at McGill.

Solid-State Physics

Theoretical: Programs of research are in progress on the properties of semiconductors and semimetals, including 2-dimensional systems, in intense magnetic fields; on dilute alloys and amorphous metals, including magnetic systems and "spin-glasses"; and on the statistical mechanics of biological membranes and polymeric systems.

Experimental: Lines of research include structural, transport and magnetic properties of metallic glasses, compound semi-conducting crystals and certain crystalline metal alloys. Vibrational and electronic Raman spectroscopy and photoluminescence of some of these materials as well as magnetic insulating crystals are in progress.

Stormy-Weather Group

This group uses the McGill Radar Weather Observatory at Ste. Anne de Bellevue which is equipped with a weather radar of outstanding capability. It records stormy weather in all seasons, supplemented in summer by three radio-direction-finding stations for lightning and three wide-angle-camera stations for stereoscopic cloud photography. There is also a program of study on the physical processes involved in the remote sensing of clouds by weather satellites.

ADMISSION

M.Sc.

Normal requirement is a B.Sc. in Physics, or equivalent, with high standing.

Ph.D.

Normal requirement is a M.Sc. in Physics, or equivalent. Candidates in good standing may have the option of transfering into this program from the M.Sc. program after one year.

REQUIREMENTS

M.Sc.

Candidates must successfully complete 5 one-semester courses and a M.Sc. thesis, in addition to all the other normal requirements of the Graduate Faculty.

Ph.D.

Candidates must successfully complete a Preliminary Examination and submit a Ph.D. thesis, in addition to all the normal requirements of the Graduate Faculty.

Financial Assistance

Subject to the availability of funds, financial assistance will be offered to students in the form of Teaching and Research assistantships. For new students, financial support will be offered at the time of acceptance.

Further Information

A brochure regarding graduate studies in physics is available on request. The brochure includes a detailed description of the research activities in the department, application forms for admission to graduate studies and information concerning requirements for the M.Sc. and Ph.D. degrees and financial support. Inquiries should be addressed to the Chairman Graduate Studies Committee.

ADVANCED UNDERGRADUATE AND GRADUATE COURSES

198-514B GENERAL RELATIVITY. (3 hours). Transition from special to general relativity. Non-Euclidian geometry. The basic laws of physics in covariant form. Einstein's equations. Newton's theory of gravitation as an approximation. Propagation of gravitation. Rigorous solutions of the field equations. Cosmology.
Professor Wallace

198-551A QUANTUM THEORY. (3 hours). General formulation, scattering theory, WKBJ approximation, time-dependent perturbation theory and applications, angular momentum, relativistic wave equations.
Professor Sharp

198-557A NUCLEAR PHYSICS. (3 hours). General nuclear properties, nucleon-nucleon interaction and scattering theory, radioactivity, nuclear models, nuclear reactions.
Professor Lee

198-558A SOLID STATE PHYSICS. (3 hours). Properties of crystals, lattice vibrations and thermal properties of insulators, free electron model and band structure, semiconductors, metals, optical properties.
Professor Harris

198-559B STATISTICAL MECHANICS. Bose and Fermi gas; cluster expansions; hydrodynamics of superfluids; second sound; Fermi liquid theory; phase transitions; the ising model; fluctuations; the Fokker-Planck equation; the Onsager relation.
Professor Zuckermann

198-562A ELECTROMAGNETIC THEORY. (Prerequisites: U1 or U2 honours physics or permission of instructor). Electrostatics, dielectrics, magnetostatics, time-varying fields, relativity, radiating systems, fields of moving charges.
Professor Mark

198-567B PARTICLE PHYSICS. (3 hours). Basic interactions and symmetries, kinematics, scattering theory, phase space, symmetry and statistics, boson and baryon spectra, experimental techniques.
Professor Henzi

198-572B APPLICATIONS OF ELECTROMAGNETIC THEORY. (Prerequisite: 198-562A). Scattering processes, wave propagation in various media, wave guides, transmission lines and resonant systems, scalar diffraction theory, plasmas, magnetohydrodynamics.
Professors Stevenson, Moore and Ström-Olsen

198-610B ADVANCED QUANTUM MECHANICS. (3 hours). Basic theory of Quantum Mechanics; treatment of special topics: theory of angular momentum, perturbation theory, scattering-theory, body problems; the Dirac Theory; quantization of the electromagnetic field.
Professor Morris

198-612A ADVANCED MATHEMATICAL PHYSICS. (3 hours). Selected topics from differential equations, Green's functions and integral equations; applications to physics.
Professor Morris

198-613A ADVANCED MATHEMATICAL PHYSICS. (3 hours). Group representation theory with applications to physics.
Professor Sharp

198-616A CLOUD PHYSICS. (3 hours). Introduction to cloud physics.

198-617B ICE PHYSICS. (3 hours). Acoustical, electrical, mechanical and thermal properties of sea ice and fresh-water ice, energy exchange in the atmosphere-ice-ocean system; ice movement.
Professors Pounder and Langleben

198-618B SOLID STATE PHYSICS. (3 hours). Lattices and their excitations; the theory and properties of normal and superconduction metals, semiconductors and their applications; magnetism.
Professor Zuckermann

198-672D NUCLEAR PHYSICS. Gross properties of nuclei, nucleon-nucleon interaction, second quantization, shell model, collective model, pairing model, electromagnetic and beta decay, nuclear reactions.
Professor de Takacsy

198-673B THEORETICAL HIGH ENERGYPHYSICS. Introductory theory and phenomenology of strong, electromagnetic and weak interactions.
Professor Margolis

198-700D PRELIMINARY Ph.D. EXAMINATION.

198-710D QUANTUM FIELD THEORY. (3 hours). The content of the course includes discussions on relativistic single particle wave functions, quantized fields and their symmetry properties, perturbation theory and applications, as well as the use of analytic properties of relativistic quantum fields.
Professor Contogouris

198-714D EXPERIMENTAL SOLID STATE PHYSICS. (3 hours). Topics, reflecting the interests of the students and the faculty involved, will be selected from the following experimental research areas: experimental low temperature solid state physics techniques; magnetism; electron transport phenomena; fermiology, propagation of electromagnetic waves in solids including resonance effects; semiconductors; superconductivity; electronic structure of alloys; properties of insulators.
Professors Hedgcock and Walsh

198-716D THEORETICAL SOLID STATE PHYSICS. (2 hours). Second quantization; Wick's theorem; Thermodynamic Green's functions; Feynman diagrams. Superconductivity: phenomenological theories, Landau-Grinsburg theory; pure superconductors and superconducting alloys. Magnetism: Hubbard's model for narrow band transition metals, ferromagnetism and antiferromagnetism initinerant electron systems; Fedder-Martin model for Chromium; theory of spin waves in magnetic metals.
Professor Wallace

198-178A SPECIAL TOPICS IN SOLID STATE PHYSICS. (3 hours). Specialized discussion of current problems in solid state physics.
Solid State Staff

198-720B EXPERIMENTAL NUCLEAR PHYSICS. This course covers the basic techniques of experimentation in nuclear physics. It includes nuclear detection systems, particle accelerators, statistics of random events and method of data reduction, kinematics of nuclear reactions, in beam and off-beam nuclear spectroscopy, angular correlation, symmetries in nuclear processes.
Foster Radiation Laboratory Staff

198-722B THEORETICAL NUCLEAR PHYSICS. Particle hole excitations and giant resonances; deformed Hartree-Fock and angular momentum projection; unified theory of nuclear reaction; direct interaction; realistic forces and calculations of bulk properties of nuclei.

198-726D EXPERIMENTAL HIGH ENERGYPHYSICS. (3 hours). High energy linear and circular accelerators - detailed design considerations in the NAL 500 GeV proton accelerator, the SLAC 20 GeV electron linear accelerator and CERN Intersecting Storage Rings, future prospects; beam design; high energy detectors - scintillation counters; spark chambers, bubble chambers and new proposals; kinematics; particle classification; spin and particle determination; discrete symmetries; internal symmetries; high energy two-body reactions; multiparticle production; Quark model.

198-729A,B SELECTED TOPICS IN NUCLEAR PHYSICS. These courses cover topics of current development in nuclear physics and the topics may change from year to year; current topics include nuclear fission, heavy ion reaction, superheavy nuclei and back bending.

198-730A SPECIAL TOPICS IN HIGH ENERGY PHYSICS I. (3 hours). Specialized discussion of some current problems in theoretical particle physics.

198-731B SPECIAL TOPICS IN HIGH ENERGY PHYSICS II. (3 hours). Specialized discussion of some current problems in particle physics.

198-732A ADVANCED THEORETICAL HIGH ENERGY PHYSICS. (3 credits). Particle classification schemes; dispersion relations and Regge theory; multiparticle production models; deep inelastic scattering; gauge theories.

198-799D SEMINARS. Each of the research groups in High Energy Physics, Ice Physics, Nuclear Physics, Solid State Physics and Stormy Weather Physics organizes research seminars to be presented by students, staff and visitors. Ph.D. candidates are required to attend and participate in the seminars organized in their field of specialisation.

E19 SCHOOL OF URBAN PLANNING

McConnell Engineering Building
3480 University Street
Montreal, PQ
Canada H3A 2A7

STAFF

Professor - DAVID FARLEY *(Director)*
Associate Professor - JEANNE M. WOLFE
Assistant Professor - DAVID BROWN
Lecturer - MORRIS CHARNEY
Associate Members - GORDON O. EWING; JANE M. GLENN
Auxiliary Professors - F. MARTIN; L. SANKEY; H.P.D. VAN GINKEL; M. WEXLER

Modern urban planning developed into a profession in the early decades of the twentieth century, largely as a response to the appalling sanitary, social and economic conditions of rapidly developing industrial cities. Initially the disciplines of architecture and civil engineering provided the nucleus of concerned professionals. They were joined by public health specialists, economists, sociologists, lawyers and geographers, as the complexities of managing cities came to be more fully understood. Contemporary urban and regional planning techniques for survey, analysis, design and implementation developed from an interdisciplinary synthesis of these fields.

Today, urban planning can be described as a technical and political process concerned with the welfare of people, control of the use of land, design of the urban environment including transportation and communication networks, and protection and enhancement of the natural environment.

McGill was the first university in Canada to offer full time planning education. Beginning in 1947, a post-graduate interdisciplinary program of studies was set up, within which students combined a master's degree in their original discipline with Urban Planning. An autonomous program was established in 1972 which became the School of Urban Planning in 1976.

The objective of the School is to produce qualified professional urban planners for the public and the private sectors. Training is provided at the postgraduate level: the degree offered is the Master of Urban Planning. Students come from a diversity of backgrounds; the physical sciences, the traditional professions and the social sciences. Upon completion of the two and one half year program of studies, graduates are expected to have acquired basic planning skills, a broad view of urban studies and a field of specialization. To achieve these objectives, teaching and research activities are organized within the context of the broader urban studies and research effort at McGill.

The program of studies offered by the School is fully recognised by the Corporation Professionnelle des Urbanistes du Québec (C.P.U.Q.), the Canadian Institute of Planners (C.I.P.) and the American Planning Association (A.P.A.). Graduates of the program can become full members of any or all of these professional organizations following completion of post-graduate internship requirements.

REQUIREMENTS FOR ADMISSION

The M.U.P. degree is open to students holding a bachelor's degree or equivalent in Anthropology, Architecture, Economics, Engineering, Geography, Law, Management, Political Science, Social Work, Sociology or Urban Studies. Students from other backgrounds are considered for admission on an individual basis.

In addition to the documents for admission required by the Faculty of Graduate Studies and Research the following must be submitted:

1. Statement of specific interest in the area of Urban Planning.
2. For architects only, a portfolio containing at least five (5) examples of architectural work accomplished in school and in practice. (Portfolios are not to exceed 8½ x 11 inches in size).

The deadline for submitting applications and supporting material is March 15.

AWARDS AND FINANCIAL ASSISTANCE

For information regarding awards and financial assistance, please refer to the FACULTY OF GRADUATE STUDIES "POSTGRADUATE FELLOWSHIPS, BURSARIES, AND PRIZES" ANNOUNCEMENT.

REQUIREMENTS FOR THE M.U.P. DEGREE

The program in Urban Planning requires the completion of 81 credits and ordinarily a minimum of two and one half years of study. It consists of a basic core of required studies and a selection of courses from a group of recommended electives. it emphasizes sponsored research to be carried out by staff and students and the development of a particular area of expertise for all students based on their backgrounds.

A three month internship with a member of a recognized planning association is required.

COURSES

Group A - Core Knowledge (All required/no substitution)

409-602D SUPERVISED RESEARCH PROJECT

409-603D PLANNING PROJECTS I

409-604A PLANNING PROJECTS II

409-606B SUPERVISED RESEARCH SEMINAR

409-609A PLANNING GRAPHICS

409-610A/B MAN AND HIS ENVIRONMENT I

409-611A/B MAN AND HIS ENVIRONMENT II

409-612B THEORYOF PLANNING

409-613A/B APPLIED QUANTITATIVE TECHNIQUES

490-004A LAND USE PLANNING LAW

In addition to courses in Group A, students are required to complete a minimum of four from Group B (highly recommended are housing and transport).

Group B - Development and Refinement (A minimum of 4 half courses required).

301-373A HISTORY OF HOUSING

301-376A STRUCTURE OF CITIES

301-378A SITE USAGE

301-435B URBAN PLANNING I: PLANNING IN QUÉBEC

301-436A URBAN PLANNING II: LAND USE REGULATION AND PROJECT DEVELOPMENT

301-484B CIVIC DESIGN

301-625B HOUSING THEORY

303-540A URBAN TRANSPORTATION PLANNING

407-637B HOUSING POLICY

409-605A GRADUATE SEMINAR

409-607D READING COURSE - URBAN PLANNING

409-614B URBAN ENVIRONMENTAL PLANNING

Group C - Electives (some suggestions). Students select courses to demonstrate an in-depth knowledge of one functional area in the field of planning. Students are not limited to the list below.

151-221A INTRODUCTION TO URBAN ANTHROPOLOGY

154-425B ECONOMICS OF ECOLOGY

154-468A URBAN AND REGIONAL ECONOMICS

160-318A LOCAL GOVERNMENT IN COMPARATIVE PERSPECTIVE

160-465A THE POLITICS OF PLANNING AND POLICY MAKING

166-222A URBAN SOCIOLOGY

183-314A INTERMEDIATE URBAN GEOGRAPHY

183-319A GEOGRAPHY OF ECONOMIC DEVELOPMENT

183-331B URBAN SOCIAL GEOGRAPHY

183-333A MONTREAL URBAN FIELD STUDIES

183-351B GEOGRAPHICAL ANALYSIS AND QUANTITATIVE METHODS

183-412B ADVANCED URBAN GEOGRAPHY

183-413A MODELS OF GEOGRAPHIC BEHAVIOUR

183-422B THE URBAN CLIMATIC ENVIRONMENT

278-485A REAL ESTATE FINANCE

278-487B REAL ESTATE VALUATION

278-495B REAL ESTATE INVESTMENT ANALYSIS

278-586A LAND LAW

303-416B TRANSPORTATION ECONOMICS

303-433B URBAN PLANNING

303-440A TRAFFIC ENGINEERING

407-270B INTRODUCTION TO SOCIAL WORK

407-352A THE PUBLIC SOCIAL SERVICES IN CANADA

407-625B COMMUNITY ORGANIZATION

Group D - The School of Urban Planning encourages students to receive practical experience outside the University setting. A three-month internship with a member of a recognized planning association is therefore required. The intership is viewed as an important aspect of students' planning education and students are advised to compose their study program with this in mind.

COURSES OFFERED BY THE SCHOOL

409-602D SUPERVISED RESEARCH PROJECT. The Supervised Research Project is intended to crystallize and focus a student's interests on a particular area of enquiry at the end of studies for a Master's Degree in Planning. It should ideally provide the transition into practice or more advanced studies. Joint research projects are allowed.
Staff

409-603D PLANNING PROJECTS I (Studio). This studio introduces students to practical problems based on real world cases. Material covered includes: problem definition; data sources, collection and analysis; goal setting; the creative process; problem solving; and policy implications. Students work in interdisciplinary groups. Each studio problem is terminated by an oral and graphic presentation of work to which expert critics are invited. Progress is evaluated according to performance in class, in the oral presentation, and on written reports.
Professors Wolfe, Farley and Staff

409-604A PLANNING PROJECTS II. (Studio). The second-year studio is designed to permit the study of planning problems in depth. Problems are chosen depending on the experience and research interests of the participants, or for their topical nature. Prerequisite: Planning Projects I.
Professor Brown and Staff

409-605A GRADUATE SEMINAR. This seminar is directed to the needs of individual students. It focuses on topics of special interest not included in the curriculum. It is given by members of staff as a tutorial.
Staff

409-606B SUPERVISED RESEARCH SEMINAR. The Supervised Research Seminar consists of group conferences between students and staff for the purpose of formulating and developing the students' research project.
Staff

409-607D READING COURSE.
Staff

409-609A PLANNING GRAPHICS. Designed to familiarize the student with graphic techniques used in professional planning work, as well as to heighten environmental perception. The course consists of a weekly lecture which reviews theory and practice followed by a weekly studio assignment involving the application of practical skills.
Mr. Charney

409-610A/B MANAND HIS ENVIRONMENT I.

409-611A/B MANAND HIS ENVIRONMENT II. The purpose of these courses is to expose students to the broad range of principles and practices which are employed by planning professionals in the solution of diverse practical planning problems. The courses consist of a series of six-week intensive modules, each of which emphasizes a specific case study and is taught by a different instructor who has had practical experience in the particular subject area. This format permits in-depth treatment of a wide variety of planning contexts which may be distinguished in terms of their subject matter, location, scale and the role played by the planner. Module topics are systematically varied over a 2-year cycle during which 6 to 8 modules are offered. Students are required to complete four modules.
Staff and Visitors

409-612B HISTORY AND THEORY OF PLANNING. A review of planning history leads to a consideration of theories of planning. These will be dealt with under three categories: a) explanation of urban phenomena, b) substantive theory, c) theories of process. Students are expected to prepare two term papers; a short one in the area of planning history, and a major one in the area of theory.
Professor Wolfe

409-613B APPLIED QUANTITATIVE TECHNIQUES. Topics include: measurement scales, parametric and non-parametric tests, multiple regression and correlation, population projection, plan evaluation, mathematical land use and transportation models (including trade area estimation and traffic models), optimization and simulation techniques applied to urban planning problems.
Professor Ewing

409-614B URBAN ENVIRONMENTAL PLANNING. Examination and evaluation of methodologies pertaining to the assessment of environmental impact in the urban context and the integration of diverse environmental elements directly within the urban planning process. Consideration is given to both theoretical and practical issues. The quality of recent professional reports is assessed.
Professor Brown

COURSES OFFERED JOINTLY BY THE SCHOOL AND OTHER ACADEMIC UNITS

490-004A LAND USE PLANNING LAW: A comparative study of private and public control of land use and development, involving: Master plans, zoning bylaws, subdivision control, urban re-development, expropriation, and regional planning.
Professor J. Glenn

301-435B URBAN PLANNING I: Theory and practice. An examination of different basic approaches to urban planning with examples.
Professor Wolfe

301-436A URBAN PLANNING II: Land Use Regulation and Project Development. Theory and practice. Detailed analysis of selected examples of the development process and of current techniques in land use and design control. Each student will be expected to prepare case studies.
Professor Farley

1982-83
FACULTY OF GRADUATE STUDIES AND RESEARCH

McGill University
Montreal

Section "F"

Social Sciences
Allied Sciences

F 1 - Department of Anthropology
F 2 - Centre for Developing Area Studies
F 3 - Department of Economics
F 4 - French Canada Studies Program
Centre d'Études Canadiennes-Françaises
F 5 - Department of Geography
F 6 - Department of History
F 7 - Law
F 8 - Department of Political Science
F 9 - Department of Psychology
F10 - School of Social Work
F11 - Department of Sociology

The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees schedules and the revision or cancellation of particular courses.

Legal Deposit II 82

F1 DEPARTMENT OF ANTHROPOLOGY

Stephen Leacock Building
855 Sherbrooke Street W.
Montreal, PQ
Canada H3A 2T7

STAFF

Professors – PETER C.W. GUTKIND *(on leave 1982-83);* FUMIKO IKAWA-SMITH; RICHARD F. SALISBURY; PHILIP CARL SALZMAN *(on leave 1982-83);* BRUCE G. TRIGGER *(on leave 1983).*

Associate Professors – DAN R. ARONSON *(Chairman),* DONALD ATTWOOD; MICHAEL S. BISSON; LEE DRUMMOND *(on leave 1982-83);* JOHN GALATY; CARMEN LAMBERT; MARGARET M. LOCK *(joint appointment with Humanities and Social Studies in Medicine);* JEROME ROUSSEAU.

PROGRAMS

The department offers training leading to the M.A. and Ph.D. in Anthropology. Admission is to the M.A. program, except when a student already holds a Master's degree. It is expected, however, that most applicants will be oriented towards achievement of the Ph.D.

The M.A. degree evidences the candidate's ability to conduct a research study, and the candidate's intensive knowledge of a range of major fields within the discipline. The Ph.D. degree evidences the candidate's original contribution in specialist fields. The degree requirements aim at allowing an early development of individual interests within anthropology while stimulating quick progress.

The ideal time for completion of the M.A. is approximately 20 months, the first year being devoted to the completion of four courses and of a research proposal, the summer to gathering research data and the following year to writing a thesis, together with some consideration of the Ph.D. project. An ideal time for Ph.D. completion involves roughly a year of preparation for a research study. After passing an examination on his or her fields of specialization and on the adequacy of his or her research proposal, the candidate spends roughly a year in data collection and another year as a minimum in analysing and writing up the research.

Participation in seminars and tutorials is expected to lead to the early identification of a research problem for thesis treatment. During the first year of graduate study the student selects a thesis supervisor from among Department Faculty to direct his or her investigation of that research problem. Other Department or University Faculty working in related areas should also be approached to serve as members of the students' thesis committee. At a minimum, the thesis committee consists of three members, of whom two must be chosen from within the Department.

The incoming student selects or is assigned an interim adviser who provides information about the program and assists in working out at least the general content of the student's first year of study. One member of the Department Faculty serves as Graduate Adviser and is available to all graduate students for consultation.

The deadline for receipt of all application material for September admission is March 1, although applicants requesting fellowship support must apply by February 15. Applications must contain the following items: Graduate Faculty Application Form; official transcripts; two letters of recommendation; statement of research interests (including your reasons for wanting to pursue them at McGill); and Graduate Record Examination Aptitude Test scores. The Department admissions committee announces its selections by April 1.

A number of teaching assistantships are available to graduate students in the Department.

Applicants who wish to be considered for an assistantship should make note of that in their applications. For information regarding a variety of fellowship programs, see the pamphlet, *"General Information and Faculty Regulations"* of the Faculty of Graduate Studies and Research.

Application packets, including a detailed brochure on the Department and a list of current seminar topics, are available directly from the *Graduate Secretary of the Department.*

REQUIREMENTS

Requirements for the M.A. Degree

Demonstration of competence in four fields of anthropology, as shown by the successful completion of four courses, is required. One of these may consist of the study of a culture area. Courses may be taken from those listed below. Information available from the Department defines and specifies the requirements of each course.

The presentation of a satisfactory thesis proposal to the students committee is required and the completion of a short thesis demonstrating the ability to, and the experience of, having carried an anthropological research project through all its stages – planning on the theoretical, methodological and ethnographic level, gathering data, and writing up of results.

Requirements for the Ph.D. Degree

All requirements for the M.A. degree must be completed. Students holding an M.A. from a university other than McGill may be asked to make up any deficiencies in their prior prepara-

tion before continuing on the remaining requirements.

Candidates must (1) demonstrate an adequate reading knowledge of French. Another language other than English may be substituted for French if it can be demonstrated to be more relevant to the student's research. Any substitutions are to be approved by the graduate committee and reported for ratification to the Department; (2) pass an oral examination on three fields of the discipline. One of these fields will usually be a culture area. The other two special fields will be topics for which departmental supervision is available. The candidate is expected to show a broad knowledge of and understanding of the literature and show competence in discussing current debate in the three fields; (3) orally defend a fieldwork proposal, often, but not necessarily, conjointly with the examination on the three fields; (4) carry out fieldwork and present and orally defend a completed thesis.

COURSES FOR HIGHER DEGREES

N.B. According to need, these half courses, spread over two terms, take the form either of seminars or of tutorials.

151-547B EARLY PREHISTORY OF THE NEW WORLD

151-552B PROBLEMS IN THE PREHISTORY OF EASTERN NORTH AMERICA

151-602D THEORY I

151-603D THEORY II

151-605D CULTURE AREA

151-610D SOCIAL ORGANIZATION

151-612D KINSHIP

151-614D ECONOMIC ANTHROPOLOGY

151-616D POLITICAL ANTHROPOLOGY

151-618D STRATIFICATION

151-620D ETHNICITY

151-625D CULTURAL ECOLOGY

151-630D SOCIAL CHANGE

151-634D ANTHROPOLOGY OF DEVELOPMENT

151-636D URBANIZATION

151-638D COMPLEX SOCIETIES

151-640D PSYCHOLOGICAL ANTHROPOLOGY

151-642D ANTHROPOLOGY OF EDUCATION

151-646D COGNITIVE ANTHROPOLOGY

151-648D STRUCTURAL ANTHROPOLOGY

151-650D ANTHROPOLOGY OF RELIGION

151-656D ANTHROPOLOGY OF ART

151-660D RESEARCH METHODS

151-665D MATHEMATICAL METHODS IN ANTHROPOLOGY

151-670D ARCHAEOLOGICAL THEORY I

151-671D ARCHAEOLOGICAL THEORY II

151-673D ARCHAEOLOGICAL FIELD METHODS

151-674D ARCHAEOLOGICAL LABORATORY METHODS

151-676D ARCHAEOLOGICAL AREA

151-678D ETHNOHISTORY

151-680D M.A. TUTORIAL READING

151-681D M.A. TUTORIAL READING

151-682D M.A. TUTORIAL READING

151-683D M.A. TUTORIAL READING

151-684D M.A. TUTORIAL READING

151-700D Ph.D. PRELIMINARY EXAMINATION

151-780D READING AND RESEARCH

151-781D READING AND RESEARCH

F2 CENTRE FOR DEVELOPING AREA STUDIES

Macdonald-Harrington Building
815 Sherbrooke Street West
Montreal, PQ,
Canada, H3A 2K6
Tel: (514) 392-5321

Director – PROFESSOR THOMAS C. BRUNEAU
Associate Director – PROFESSOR THOMAS O. EISEMON

The Centre encourages study in themes of interest to the "Third World" and promotes interdisciplinary research projects on specific topics. While the majority of those most actively involved in the Centre are in the social sciences at McGill, contacts and cooperation also exist with other faculties and universities. The Centre possesses a small library specializing in development studies, and hosts frequent seminars and lectures. The results of research pertaining to the general area of development by those both inside and outside McGill are published through an editorial office located at the Centre.

COURSES AND SEMINARS

The Centre does not offer a degree program in development studies. The following list of

graduate courses in various aspects of "development" is provided for reference purposes only. Application to the university should be made through the department offering courses in which the student is interested.

ANTHROPOLOGY

151-614D ECONOMIC ANTHROPOLOGY

151-616D POLITICAL ANTHROPOLOGY

151-634D ANTHROPOLOGY OF DEVELOPMENT

151-636D URBANIZATION

ECONOMICS

154-634A ECONOMIC DEVELOPMENT

154-724B INTERNATIONAL ECONOMICS

154-734B ECONOMIC DEVELOPMENT

154-736B TECHNIQUES OF DEVELOPMENT PLANNING

EDUCATION

411-639A,B EDUCATION AND DEVELOPMENT

411-643A,B COMPARATIVE STUDY OF EDUCATION IN DEVELOPING NATIONS

GEOGRAPHY

183-606A,B GEOGRAPHY AND DEVELOPMENT: SELECTED TOPICS

183-622A,B HUMID, TROPICAL ENVIRONMENTS

183-623A,B SEMINAR ON REGIONAL RESEARCH

MANAGEMENT

278-685A,B CROSS-CULTURAL MANAGEMENT

278-686A INTRODUCTION TO INTERNATIONAL BUSINESS

278-690A,B MANAGEMENT IN DEVELOPING COUNTRIES

POLITICAL SCIENCE

160-647A POLITICAL DEVELOPMENT

160-660A STATE AND SOCIETY IN NON-DEMOCRATIC REGIMES

160-724A AFRICAN POLITICS

160-731B POLITICAL IDEOLOGIES

160-747B DEPENDENCE AND DEVELOPMENT

Seminars in the field of "development" are also offered on request by the Brace Research Institute and the Faculty of Engineering.

SOCIOLOGY

166-550B SEMINAR: THE SOCIOLOGY OF DEVELOPING SOCIETIES

166-638A SEMINAR: THE DEMOGRAPHIC TRANSITION AND SOCIAL CHANGE

166-670B SEMINAR: COMPARATIVE URBANIZATION IN THE THIRD WORLD

166-672A SEMINAR: SOCIAL CHANGE

NOTE: Further information about the Centre's plans and activities may be obtained by writing to the Director.

F3 DEPARTMENT OF ECONOMICS

Stephen Leacock Building
855 Sherbrooke Street W.
Montreal, PQ
Canada H3A 2T7

STAFF

Professors – A. ASIMAKOPULOS; E.F. BEACH; I. BRECHER; A. DEUTSCH; C. GREEN *(on leave 1982-83);* J.C.R. ROWLEY; J.C. WELDON; H.R.C. WRIGHT

Associate Professors – P. DAVENPORT; A.H. FENICHEL; M. FRANKMAN; G. GRANTHAM; J. HANDA; S.H. INGERMAN; J. ITON; J. KURIEN *(on leave 1982-83);* K. LEVITT *(on leave 1982-83);* T. NAYLOR; L.A. SODERSTROM; T. VELK *(on leave 1982-83);* A. VICAS

Assistant Professors – R. CAIRNS; W. WATSON

This announcement is prepared early in the calendar year, and so is likely to need modification by the time the academic year begins. A mimeographed supplement is available at the Department Office, and should be consulted. Changes are not likely to be numerous, but in some instances may be important to a sensible choice of program.

REQUIREMENTS

Admission

Students holding a B.A. degree may be eligible for admission. Preparation equivalent to a McGill Honours Program in Economics is the normal requirement. Students who have deficiencies in their preparation but are otherwise judged to be qualified are admitted to a qualifying year, in which they undertake advanced undergraduate work.

Lectures and examinations in the graduate program in Economics are organized around 12 broad fields: (1) Econometrics; (2) Economic Development; (3) Economic History; (4) Economic Theory; (5) Industrial Organization; (6) International Economics; (7) Labour Economics; (8) Monetary Economics; (9) Public Finance; (10) Ur-

ban and Regional Economics (for M.A. only); (11) Mathematical Economics (for M.A. only); (12) Resource Economics (for M.A. only).

Courses at the 600 level will be offered in most of these fields in each session, and when such a course cannot be offered in a particular field a reading course, with tutorial assistance, will be made available. Students who have not previously passed a suitable course in Statistics must take the undergraduate honours statistics course, Economics 154-357D. A two-semester course in the history of economic thought is also a prerequisite for a graduate degree in economics, and students who have not taken such a course will be required to take Economics 154-350D. Courses at the 700 level (seminars) are offered including those in most of the first nine fields listed above. They are generally given in the second term and normally have as a prerequisite the corresponding 600 level courses or equivalent.

Requirements for the M.A. Degree

The requirements for the master's degree are:

1) Successful completion of the following courses and seminar with a grade in each of at least 65 percent:
   a) Economics 154-611D (Microeconomics)
   b) Economics 154-621D (Macroeconomics)
   c) A 600 level half-course (except in the case of Econometrics where both 662A and 664B are required) in one of the fields listed under "Admission" above
   d) An additional half course in economics or an approved course in a related discipline
   e) A 700 level seminar in one of the fields listed under "Admission"
2) Completion of a Master's thesis, the subject of which must be approved by the Research Committee. The paper written for the student's seminar (700 level course) often forms the basis for the thesis.

Requirements for the Ph.D. Degree

The requirements for the doctoral degree are:

1) Successful completion of the Ph.D. Comprehensive Examination, consisting of written and oral parts
2) Three 700 level seminars
3) Successful completion of the Quantitative Methods course (665A) unless Econometrics is one of the student's fields
4) A language requirement
5) A dissertation and
6) Three years of residence (credit for one year may be granted for master's work at McGill or for graduate study at another university).

Ph.D. Comprehensive Examination. This examination consists of written examinations in Economic Theory and in two major fields followed within a short period of time by an oral examination in theory and the two fields. The three examinations must be taken at the same time.

The Theory examination will test the student's knowledge of basic economic theory and his ability to assess divergent points of view in economics, with questions on contemporary economic theory, comparative economic ideas, and the history of economic thought.

Three Seminars: Three 700 level seminars are required, one of which may have been taken as part of the M.A. program at McGill. Students often take the seminars given in the fields in which they intend to take the Ph.D. Comprehensive Examination, plus a third freely chosen, or they take the two theory seminars, 720A and 722B, plus the seminar given in one of their fields. The passing grade in seminars is 65 percent.

Language Requirements: Students must pass examinations in translating into English from an unseen text in two approved modern languages, or an examination in translating one language at an advanced level. Students may, if they choose, satisfy the language requirement by passing an examination involving the translation of an unseen text in English into French, at an advanced level. If the candidate's mother tongue is not English, the Graduate Faculty may, if the Department so recommends, exempt that student from one of the two required language tests. An examination in mathematics may be substituted for one of the language requirements.

Doctoral Dissertations: Students must write doctoral dissertations which make original contributions to the literature. The topics must be approved by the Research Committee and the dissertations will be supervised by a two-man committee, whose Chairman is the student's Director of Research. The completed thesis must be approved by an external examiner as well as by the internal committee before the student may defend the work in a formal oral examination.

Residence requirement: Two years of residency beyond the M.A. degree are required for a Ph.D. degree. Students who have a master's degree from McGill, or who have been given permission on the basis of their performance in the first year of graduate work at McGill to proceed directly to the Ph.D. program, are enrolled initially in Ph.D. 2.

COURSES FOR HIGHER DEGREES

154-602A ECONOMIC HISTORY. Selected topics in European and North-American economic history are investigated from the standpoint of the interplay of institutional change and quantitative growth.
Professor Naylor

154-611D MICROECONOMICS. A systematic course in the elements of microeconomic theory.

154-621D MACROECONOMICS. A systematic course in the elements of macroeconomic theory.
Professors Handa and Davenport

154-622A PUBLIC FINANCE. An analysis of the public revenue and expenditure structure and its effects on resource uses and income distribution. Analysis of the effects of fiscal policy upon the level of employment, prices, and the rate of economic growth.

154-623A MONEY AND BANKING. A rigorous analysis of the demand and supply of money and the role that it plays in the economy. Study of the ideas of the major schools of thought in monetary economics.
Professor Handa

154-624A INTERNATIONAL ECONOMICS. A detailed examination of theories and policies in international trade and finance.
Professor Vicas

- **154-631A HISTORICAL EXPERIENCE OF ECONOMIC DEVELOPMENT.** Examination of historical patterns of development in relation to currently less developed countries.

- **154-633D MATHEMATICS FOR ECONOMISTS.** An introduction to the techniques of calculus and linear algebra frequently encountered in economic theory and econometrics.

154-634A ECONOMIC DEVELOPMENT. A systematic treatment of the characteristics and problems of economic development in underdeveloped countries.
Professor Iton

154-637A INDUSTRIAL ORGANIZATION AND REGULATION. An analysis of the nature of the firm, industrial structure and the effect of structure on firm and industry behavior and performance. The course will also cover standard topics on the economic behavior and performance of regulated industries.
Staff – Centre for the Study of Regulated Industries

154-641A LABOUR ECONOMICS. A synthesis of theoretical developments in the area of labour economics with stress upon problems of empirical testing.
Professor Ingerman

154-662A INTRODUCTION TO ECONOMETRICS.
Professor Rowley

154-664B ECONOMETRICS. A discussion of economic methods of handling errors in variables, autoregression, multicolliniarity, heteroscedasticity, lagged variables, dummy variables, and the handling of simultaneous equations.
Professor Rowley

- **154-665A QUANTITATIVE METHODS.** A survey of quantitative methods frequently used in economic research. Special emphasis will be placed upon the formulation and evaluation of econometric models. Illustrations will be drawn from the existing empirical literature in economics. Required for all Ph.D. students who have not taken Econometrics as a field.
Professor Kurien

154-505B RESOURCE ECONOMICS. (3 credits; Prerequisites: 154-200D or 154-250D). Selected topics in resource economics to include (i) Malthusian and Ricardian scarcity; (ii) the optimal depletion of renewable and non-renewable natural resources; (iii) exploration, risk, and industry structure, and (iv) resource rents and taxation. Current public policies applied to the resource industries, particularly those of a regulatory nature will be examined. (Not open to students who have taken 154-404D).
Professor Cairns

- **154-568A URBAN AND REGIONAL ECONOMICS.** (3 credits). An introduction to location theory and to urban and regional economics. Its purpose is also to teach some elementary tools of analysis to people intending to do research, applied or pure, in this field. (Not open to students who have taken 154-468A.)

- **154-577B MATHEMATICAL ECONOMICS I.** (3 credits; Prerequisite: 189-233A or equivalent). A mathematical treatment of basic economic theory. (Not open to students who have taken 154-367D.)

- **154-578B MATHEMATICAL ECONOMICS II.** (3 credits; Prerequisite: 154-577A). A mathematical presentation of economic analysis. Difference and differential equations and their applications in economics. (Not open to students who have taken 154-367D.)

SEMINARS

154-702B ECONOMIC HISTORY. A study of the historical background to economic growth and change in one country during a limited period of modern history. Other countries and other periods will be taken into account for purposes of comparison.
Economic History Staff

- **154-711B THEORY OF THE FIRM.** A specialized study of the theory of the process of the firm.

154-712B PUBLIC FINANCE. Selected topics in public finance.

- **154-713B WELFARE ECONOMICS.** This course is intended for graduate students who have had a course in advanced theory and who, in particular, are well acquainted with modern demand theory. It is intended as a supplement to descriptive and analytical economics.

154-720A MICROECONOMICS. A systematic treatment of selected topics in Microeconomics.
Professor Weldon

154-721B ADVANCED MONETARY THEORY. This seminar will examine selected topics in monetary theory, the theory of monetary policy, and the history of monetary institutions. Seminar participants will be asked to prepare at least one paper.

154-722B MACROECONOMICS. A systematic examination of selected topics in Macroeconomics.
Professor Asimakopulos

154-724B INTERNATIONAL ECONOMICS. Selected problems in international trade, foreign exchange and international movements of capital. In 1982-83 the topic will be the new international division of labour.
Professor Frankman

- **154-725A COST BENEFIT ANALYSIS.** A discussion of the development and scope of the subject. An examination of the concepts of consumers' surplus and rents, transfer payments, shadow pricing, external economies and diseconomies; a discussion of investment criteria and the problem of uncertainty. A study of some specific applications of the cost-benefit technique.

154-734B ECONOMIC DEVELOPMENT. Problems of economic growth and planning in selected underdeveloped countries. (This seminar is also listed in the Centre for Developing Area Studies).
Professor Iton

154-736B TECHNIQUES OF DEVELOPMENT PLANNING. A study of long-term planning to bring about structural changes in the economy and raise growth and employment rates. Emphasis is on underdeveloped countries and underdeveloped regions.
Professor Levitt

154-737B INDUSTRIAL ORGANIZATION AND REGULATION SEMINAR. The seminar builds on material covered in 154-637A. Problems are examined in greater depth with specific topics varying from year to year.
Staff – Centre for the Study of Regulated Industries.

- **154-738A SELECTED TOPICS IN ECONOMIC GROWTH.** A study of selected problems in economic growth, with special emphasis on the interactions between employment, investment, productivity and technical change in a growing economy.

154-741B ADVANCED LABOUR ECONOMICS. A combined lecture and research seminar covering selected theoretical and policy issues in labour economics.
Professor Soderstrom

154-744A,B HEALTH ECONOMICS. The emphasis in this seminar will be on describing and analyzing the structure and performance of the Canadian health system, though some attention will be given to recent attempts by the federal and provincial governments to deal with current problems in this field. Readings will be selected from the economics and health literature.
Professor Soderstrom

- **154-750A SELECTED TOPICS IN ECONOMICS.** This seminar will deal with topics of interest to the students and staff who are organizing the seminar. These topics will be in areas other than those covered by existing seminars and particular attention will be paid to critiques of neoclassical economic theory.

- **154-761A INPUT-OUTPUT ANALYSIS, LINEAR PROGRAMMING AND MULTISECTORAL ECONOMIC MODELS.** National Economic Accounting, including Input-Output, and Flow of Funds accounts. Analytical uses relating to the impact of public and other expenditures on income, imports, savings, employment, etc.

154-762D ECONOMETRICS. Econometric theory and application.
Professor Rowley

- **154-767B APPLIED QUANTITATIVE ECONOMICS.** Co-ordinated quantitative research projects under the guidance of the instructor to increase facility in quantitative research.

154-799D Ph.D. COMPREHENSIVE EXAMINATION.

NON-CREDIT AND QUALIFYING-YEAR COURSES IN ECONOMICS:

154-250D INTRODUCTION TO ECONOMIC THEORY.
Professor Asimakopulos

154-311A,B UNITED STATES ECONOMIC DEVELOPMENT.
Professor Fenichel

154-343D THE INTERNATIONAL ECONOMY SINCE 1850.
Professor Wright

154-352D MACROECONOMICS.
Professors Davenport and Handa

154-357D ECONOMIC STATISTICS.

- **154-404A TRANSPORTATION.**

154-408D PUBLIC FINANCE.
Professor Deutsch

154-426D LABOUR ECONOMICS.
Professor Soderstrom

154-450D ADVANCED ECONOMIC THEORY.
Professors Asimakopulos and Handa

- **154-451B SEMINAR IN ECONOMIC HISTORY.**
Professor Grantham

154-453D INTERNATIONAL ECONOMICS.
Professor Iton

154-458D MONEY AND BANKING.

154-460D HISTORY OF ECONOMIC THOUGHT.
Professor Weldon

F4 FRENCH CANADA STUDIES PROGRAM CENTRE D'ÉTUDES CANADIENNES FRANÇAISES

3475 Peel Street
Montreal, PQ
Canada H3A 1W7

STAFF

Director – Professor YVAN LAMONDE

PROGRAM

In 1963-64 McGill University established a French Canada Studies Program. Much of the energies and resources of the Program are devoted to research and teaching with a view to making McGill a centre of advanced study and original research in this area.

Graduate students may register with the French Canada Studies Program should their main field of study be French Canada. They should apply directly to the French Canada Studies Program which will then contact the relevant department in order to ascertain if the department is prepared to receive the applicant as a degree candidate and to appoint a co-director of research. The Director of the French Canada Studies Program, or his representative, and the departmental appointee will then act jointly and watch over the interests of the applicant.

Graduate students taking courses dealing in whole or in part with French Canada, or who are studying French Canada as their special field of study, are cordially invited to make use of the reference, documentation and bibliographical facilities of the French Canada Studies Program.

En 1963, un Centre d'Études canadiennes-françaises fut créé à l'Université McGill. En collaboration avec les autres Départements de l'Université, le but de ce Centre est d'assurer un enseignement et de développer la recherche à un niveau supérieur, sur divers aspects du Canada français.

Les étudiants qui désirent poursuivre des études en vue de l'obtention d'une maîtrise ou d'un doctorat en études canadiennes-françaises doivent procéder de la manière suivante: l'étudiant gradué fait sa demande d'admission directement au Centre d'Études canadiennes-françaises. Celui-ci s'assure auprès du Département concerné que le candidat est suffisamment qualifié et l'accepte au niveau de la maîtrise ou du doctorat, suivant le cas. Le Directeur du Centre d'Études canadiennes-françaises, ou son délégué, et un représentant du Département dirigent conjointement les travaux de l'étudiant.

Les étudiants dont les cours portent, en tout ou en partie, sur le Canada français, ou qui se spécialisent dans ce domaine sont invités à se prévaloir du service de référence, de documentation et de bibliographie du Centre d'Études canadiennes-françaises.

COURSES

157-636A APPROCHES THÉORIQUES À LA POLITIQUE QUÉBÉCOISE. (Ouvert aux étudiants sous-gradués de niveau senior; ce cours sera mené en anglais et en français. Les étudiants doivent donc pouvoir lire et tout au moins comprendre les deux langues; il est recommandé aux étudiants de s'inscrire aussi à 157-727B).
En 1982 nous nous pencherons sur les principaux modèles théoriques utilisés dans l'étude des nationalismes politiques qui ont surgi à l'intérieur de certains pays occidentaux: fonctionalisme et développementalisme, théorie des conflits, consociationalisme, analyse structurelle et des configurations. Attention particulière au Québec mais dans une perspective comparative. Parmi les auteurs étudiés: M. Rioux, M. Hechter, G. Bourque, A. Zolberg, L. Hartz et L. Dion

157-727B ÉTUDES EMPIRIQUES SUR LA POLITIQUE QUÉBÉCOISE. (Ce séminaire s'adresse particulièrement mais non exclusivement aux étudiants qui auront suivi 157-636A). Ce séminaire cherche à pousser plus loin et à vérifier de façon empirique certaines des hypothèses et modèles théoriques sur la société québécoise.
En 1983 nous nous intéresserons particulièrement au phénomène des nationalismes périphériques (Belgique, Irlande, Espagne), en particulier celui du Québec. Le séminaire privilégiera l'approche comparative et les étudiants devront mener à terme et présenter les résultats d'un travail de recherche.
Professeur Latouche

- **109-665A,B MASS CULTURE AND MEDIA IN CANADA AND QUÉBEC.** Focus on contemporary culture and media in Canada and Québec since 1945, with special emphasis on the 70's. Cultural indicators, mass culture history and theory in capitalist and socialist countries, using UNESCO data for comparative purposes. Analysis of such cultural indicators as consumption, electrification, publishing, sports, tourism and the mass media phenomena of radio, TV, records, movies, literature, etc. Seminars will be conducted mostly in French, with oral participation and papers in French or English.
Professeur Lamonde

F5 DEPARTMENT OF GEOGRAPHY

Burnside Hall
805 Sherbrooke Street W.
Montreal, PQ
Canada H3A 2K6

STAFF

Professors – J.B. BIRD *(Chairman);* M.A. CARSON; T.L. HILLS; J.T. PARRY
Associate Professors – W.R. ARMSTRONG: R.N. DRUMMOND; G.O. EWING; J.E. LEWIS; J. LUNDGREN: T.R. MOORE: L. MÜLLER-WILLE; S. OLSON
Assistant Professors – J. BRADBURY; T. MEREDITH

ADMISSION

M.A. and M.Sc. Degrees

Attention is directed to the Faculty of Graduate Studies admission regulations outlined in the *General Information and Faculty Regulations* section headed "Admission".

Applicants not satisfying these conditions, but with primary undergraduate specialization in a cognate field may register for the M.A. or M.Sc. degree in Geography in certain circumstances. In general they will be required to register for a qualifying year, as will all others who have deficiencies in their preparation but are otherwise judged to be qualified.

Ph.D. Degree

Students who have attained high standing in the Master's degree in Geography may be permitted to proceed to the Ph.D. in two further years. Rarely, a student may be allowed to register for the Ph.D. degree without having first taken the Master's degree. The normal duration of a program, including field work where required, is three years. Normally, the Department will restrict admission to the Ph.D. program to students prepared to work in one of the fields of human or physical geography in which specialized supervision is offered. These, which cover a wide range of systematic areas, are listed in documents available from the Department.

REQUIREMENTS

Graduate Diploma in Environmental Remote Sensing

Applicants for the Diploma in Environmental Remote Sensing should hold a B.A. or B.Sc. degree with a major in one of the disciplines fundamental to the study of remote sensing. Inquiries are invited from students with such Bachelor's degrees as Geography, Geology, Ecology, Planning, etc.

Candidates must:

1. Pass in Geography 183-535B; Geography 183-633A,B or Geology 186-535D; a graduate half course in quantitative methods, data analysis or image processing and one other approved graduate half course.
2. Complete a project report on an approved topic.
3. Complete the program within 12 months of admission.

M.A. AND M.Sc. DEGREES

Candidates must:

(1) pass in the equivalent of five graduate half courses, selected according to guidelines of the Department. Senior undergraduate courses in other departments may be substituted for some of this requirement, with the permission of the Department of Geography;
(2) attend such additional courses as the Chairman and the student's director of research think fit;
(3) submit a thesis in an appropriate area of geographical inquiry. The quality of the thesis will determine the final standing of the student.

Ph.D. Degree

Candidates must:

(1) attend such courses as the Chairman and the student's supervisory committee think fit, and comply with a language requirement if this is recommended by that committee;
(2) pass a comprehensive examination, the form of which is detailed in a document available from the Department;
(3) submit a thesis based on original research in an appropriate area of geographical inquiry.

The quality of the thesis will determine the final standing of the student.

COURSES AND SEMINARS FOR HIGHER DEGREES

All courses meet once in each week.

Contact Graduate Affairs Office, Department of Geography, in late August for details of course contents and for term in which each course will be offered.

183-503B ENVIRONMENTAL IMPACT EVALUATION. Theory and Methods. A study of the development and application of environmental impact evalua-

tion noting the theoretical basis and practical shortcomings of various methodologies. Emphasis on the means of accurately assessing impacts on physical systems and evaluating the significance of those impacts in terms of human usage of the affected systems.
Professor Meredith

183-523B ADVANCED CLIMATOLOGY. An advanced study of the principles of physical climatology and their application to the spatial variations and characteristics of energy and water balance in rural and urban environments.
Professor Lewis

183-535B INTERPRETATION METHODS: AIR PHOTOS AND IMAGERY. (Not available to students registered in Geography 183-633A,B). Basic photogrammetry and interpretation procedures for aircraft and spacecraft photography and imagery.
Professor Parry

183-602A,B URBAN GEOGRAPHY: SELECTED TOPICS. Social and historical aspects of the urban environment.
Professor Olson

183-603A,B URBAN GEOGRAPHY: SELECTED TOPICS. Spatial interaction, distance/cost perception, modal choice, urban travel demand modelling.
Professor Ewing and Staff

183-604A,B ECONOMIC GEOGRAPHY: SELECTED TOPICS. Behaviour of economic activity within the context of regional economic development.
Professor Lundgren and Staff

183-605A,B ECONOMIC GEOGRAPHY: SELECTED TOPICS. Geographical aspects of Canadian development and industrialization.
Professor Bradbury and Staff

183-606A GEOGRAPHY AND DEVELOPMENT: SELECTED TOPICS. Historical roots of uneven development in metropolitan and peripheral societies.
Professor Armstrong and Staff

183-607B GEOGRAPHY AND DEVELOPMENT: SELECTED TOPICS. Problems of contemporary uneven development; mechanisms of underdevelopment and peripheral responses.
Professor Armstrong and Staff

183-608A,B CULTURAL GEOGRAPHY: SELECTED TOPICS. Cultural ecology with particular reference to changing peasant/plantation relations; space needs of native peoples in relation to land claims.
Professor Hills and Staff

183-609A,B HUMAN GEOGRAPHY. Analysis of social and behavioural problems in human geography.
Staff

- **183-610A,B SOCIAL GEOGRAPHY: SELECTED TOPICS.** Man's relation to natural, socio-economic and political environments.
Professor Müller-Wille and Staff

183-612A,B ADVANCED PHYSIOGRAPHY. An analysis of recent advances in geomorphology.
Professors Bird and Carson

183-613A,B ADVANCED BIOGEOGRAPHY. An examination of the history, methods and objectives of biogeographly, with emphasis on plants.

183-614A,B SOILS AND WEATHERING. An examination of the major processes operating in soils: weathering reactions, pedogenetic processes, and soil nutrient relationships.
Professor Moore

183-615A,B HYDROLOGY AND WATER RESOURCES. An analysis of recent developments in hydrology, with emphasis on their applications to geographical problems.

183-622A,B HUMID TROPICAL ENVIRONMENTS. Man's role in the tropical landscape.
Professor Hills and Staff

183-623A SEMINAR ON REGIONAL RESEARCH: A SELECTED REGION. Distinct approaches to geographic research in selected study regions.
Staff (according to regional interest)

183-624B SEMINAR ON REGIONAL RESEARCH: A SELECTED REGION. Distinct approaches to geographic research in selected study regions.
Staff (according to regional interest)

183-631D METHODS OF GEOGRAPHICAL RESEARCH. General research seminar in human and phlysical geography.
Staff

183-632A,B ADVANCED CARTOGRAPHY. An examination of modern geographic-cartographic techniques for the presentation and reproduction of thematic data. Laboratory and field work is required.
Professor Drummond

183-633A,B REMOTE SENSING. (Not available to students registered in Geography 183-535A,B). A review of aircraft and spacecraft remote sensing systems and their applications.
Professor Parry

183-634A,B QUANTITATIVE METHODS IN GEOGRAPHY. An examination of certain techniques in geographic research and their limitations. Emphasis is directed to the use of correlation and regression analysis, and to multivariate extensions of these techniques.
Professor Carson

McGill Subarctic Research Station

This field research station is in Schefferville, Québec, in the centre of Labrador-Ungava. Facilities exist for research in most areas of physical and some areas of human geography in the subarctic. For details contact the Chairman, Department of Geography. The station is operated by the McGill Centre for Northern Studies and Research. Other northern research facilities and courses are also offered by the Centre.

F6 DEPARTMENT OF HISTORY

Stephen Leacock Building
855 Sherbrooke Street W.
Montreal, PQ
Canada H3A 2T7

STAFF

Professors – V. BOSS; L. DECHÊNE; P.C. HOFFMANN *(Chairman);* M.P. MAXWELL; H. SENIOR: R. VOGEL
Associate Professors – P.H. BOULLE; M.J. ECHENBERG *(on leave 1982-83);* J.W. HELLMAN *(on leave 1982-83);* E. LAFFEY; C.I. MILLER; Y. OTA; N. PARTNER; S.J. RANDALL; A.R. RIGGS; J.H. THOMPSON; B.J. YOUNG
Assistant Professors – G.D. HUNDERT; M. PETTER *(on leave 1982-83);* R. RICE

REQUIREMENTS

Admission

Candidates should submit their applications before 15 March.

Ph.D. Language Requirements

Candidates must offer one foreign language for examination purposes and they must also demonstrate a reading knowledge of such other languages as are required for research purposes in their major field. The Department expects that candidates will have successfully demonstrated competence in the one required language by the end of their Ph.D. 3 year.

Requirements for the M.A. Degree

Candidates applying for a Master's degree in History are required to possess an Honours B.A. which may be in History alone or in History and one other subject. When taken in History alone it must include eleven full courses taken in prescribed sequence, together with certain other approved courses notably in foreign languages. Graduate students who enter without this qualification may find it necessary to make good any deficiency in their undergraduate program and the Department is prepared to facilitate this.

Candidates may choose to proceed in one of two ways:

1. Candidates may proceed to the degree by the successful completion of the work of one (other than History 101-650D) of the Graduate Seminars listed below and by submitting an M.A. thesis, in the area of their special interest.
2. Candidates may proceed to the degree by:
   a) the successful completion of the work of History 101-616D, Seminar in the Philosophy of History (if not available, another seminar should be taken);
   b) the successful completion of the work in two further seminars one of which will represent the candidates' major field of interest and the other their minor field,
   c) a Research Paper (History 101-650D) in the candidate's major field.

101-650D RESEARCH PAPER IN MAJOR FIELD. This research paper must demonstrate the candidates' ability to do independent work in their major field of interest. It may not be presented before the completion of a full year (one academic session and a summer) of residence in the university. Permission may be given for the summer study to be undertaken at another institution. Regulations concerning the research paper may be obtained from the Department.

101-655D Candidates whose major interest lies in fields in which no seminar is offered may, with the consent of their Director of Studies, offer extra tutorial work and such other seminar work as designated by their Director.

Candidates should check with the Department with regard to graduate seminars in view of the possibility that not all the seminars listed will be available.

Requirements for the Ph.D. Degree

An M.A. in History is the prerequisite for all candidates applying to enter the Ph.D. program. Candidates are required to sit an oral comprehensive examination by September at the end of the first resident year. The examination consists of:

101-702D Comprehensive examination in major field.

101-703D Comprehensive examination in first minor field.

101-704D Comprehensive examination in second minor field.

Candidates must consult with their Director of Studies at the beginning of their Ph.D. work in order to determine their minor fields.

With the completion of the oral comprehensive examination, candidates may proceed with their doctoral dissertation.

The Department is prepared to direct theses of graduate students in the following fields:

British History

a) England in the Middle Ages.
b) Scotland and Ireland in the 16th, 17th and 18th centuries.
c) British History, social and political: Tudor-Stuart, 19th and 20th centuries.
d) British Imperial Policy: 1714-1914.
e) Certain aspects of British Foreign Policy since 1815.

Canadian History

a) The Canadian West.
b) The social and economic history of Montreal, 1800-1900.
c) The History of Lower Canada and Québec in the 19th century.
d) Aspects of the History of French Canada in the modern period.
e) Canadian-American relations.
f) New France.

United States History

a) The history of the United States in the late colonial period.
b) The history of the United States in the 19th and 20th centuries.

European History

a) The constitutional development of the Holy Roman Empire in the 13th century.
b) The Reformation.
c) Aspects of the History of France.
d) Aspects of German History since 1800.
e) Aspects of the history of western Europe 1870-1914.
f) Russian and Soviet History.
g) Aspects of the history of Slavonic Europe.
h) War and Society in Modern Europe.
i) Certain aspects of the history of European-Chinese relations.
j) Aspects of Intellectual History of Modern Europe.
k) Certain aspects of the History of Science from the 16th century.
l) Aspects of Jewish History

Non-European History

a) Aspects of West African History.
b) Aspects of 20th Century Chinese History.
c) Aspects of 20th Century Latin America (M.A. only).

The Redpath and McLennan Libraries are well equipped with printed sources for the periods and subjects mentioned above, and students pursuing research in Canadian History will be required, as occasion arises, to avail themselves of the manuscript resources of the Public Archives at Ottawa and the Provincial Archives at Québec, and of parochial and other records in Montreal and its vicinity.

However, the Department may require candidates to spend one year in research at another university or repository of archives.

GRADUATE SEMINARS AND COURSES

101-604 SEMINAR: COLONIAL AMERICA.
Professor Riggs

- **101-605D SEMINAR: MODERN EUROPEAN INTELLECTUAL HISTORY.**
  Professor Hellman
- **101-607D SEMINAR: RELIGIOUS AND IDEOLOGICAL MOVEMENTS IN THE UNITED KINGDOM AND WESTERN EUROPE 1815-1914.**
  Professor Senior
- **101-608D SEMINAR: SIXTEENTH AND SEVENTEENTH CENTURY BRITAIN.**
  Professor Maxwell
- **101-610D SEMINAR: FRENCH COLONIES AND EXTERNAL COMMERCE IN THE EIGHTEENTH CENTURY.**
  Professor Boulle
- **101-612D SEMINAR: GERMAN NATIONAL SOCIALISM.**
  Professor Hoffmann
- **101-614D SEMINAR: SOCIAL MOVEMENTS IN WESTERN EUROPE IN THE LATER MIDDLE AGES.**
- **101-616D SEMINAR: PHILOSOPHY OF HISTORY.**

101-626D SEMINAR: THE WESTERNIZATION OF RUSSIA.
Professor Boss

- **101-634D SEMINAR: PROBLEMS IN MODERN BRITISH HISTORY SINCE 1867.**
  Professor Petter
- **101-643D SEMINAR: PROBLEMS IN CANADIAN HISTORY TO 1867.**
  Professor Dechêne

101-652 SEMINAR: PROBLEMS IN CANADIAN HISTORY, 1867-1967.
Professor Miller

- **101-668D ASPECTS OF EAST ASIAN HISTORY.**
  Professor Ota

101-671D SEMINAR: AMERICAN SOCIETY FROM THE CIVIL WAR TO 1920.
Professor Randall

- **101-678D SEMINAR: HISTORIOGRAPHY.**
  Professor Partner
- **101-680D SEMINAR: PROBLEMS OF EMPIRE: EUROPE AND ITS DEPENDENCIES IN THE AGE OF CAPITALISM.**
  Professors Boulle and Echenberg

  101-683D SEMINAR: THE HISTORY OF MONTREAL.
  Professors Rice and Young
- **101-691D SEMINAR: A HISTORY OF CANADA'S NATIVE PEOPLES.** (Open *only* to students in the M.Ed. Teaching of History program).

F7 LAW

3690 Peel Street
Montreal, PQ
Canada H3A 1W9

DEGREES

The higher degrees in law are the M.C.L. (Master of Civil Law), the LL.M. (Master of Laws) and the D.C.L. (Doctor of Civil Law), as offered by the Institute of Air and Space Law, and the Institute of Comparative Law. All graduate students except those registered in the Institute of Air and Space Law come under the direction of the Institute of Comparative Law.

Requirements for the M.C.L. or LL.M. Degree

See the general regulations of the Faculty of Graduate Studies and Research on requirements for the Master's degree.

Candidates for admission to M.C.L. or LL.M. programs must hold the degree of B.C.L., with at least second class honours, from McGill University, or its equivalent, and satisfy the linguistic and other requirements of the Institute of study. A candidate must follow the courses prescribed by the Institute, including cognate courses in other departments of study, submit an acceptable thesis and, if required by the Institute, undergo an oral examination designed to test the general knowledge of the field of the research studies.

The degree may be completed, by well-qualified and capable students, within one calendar year, but if all degree requirements have not been completed within this time an additional full academic session in residence in necessary.

Requirements for the D.C.L. Degree

The program of each Institute consists of a minimum of three years' work from the first registration of the candidate. Only an applicant of proven legal scholarship of high merit will be admitted to candidacy for this degree and normally a candidate should be the holder of both a general degree and a law degree. In the case of a candidate who hold the M.C.L. or LL.M. degree from McGill or its equivalent from another university, two years of resident study beyond the master's degree are required but may be reduced to one year with the approval of the Executive Committee of the Graduate Faculty on the recommendation of the Graduate Studies Committee of the Faculty of Law. This non-resident year must be spent at another university or similar institution. Applicants must satisfy the linguistic and other requirements of the Institute of study and, as a rule, an Institute will not permit candidates who are not the holders of appropriate master's degrees, or their equivalent, to register directly for the D.C.L. but will require them to register for the M.C.L. or LL.M. A candidate for the M.C.L. or LL.M. degree of McGill, who, upon the completion of the first year of resident study, shows considerable promise may, upon the recommendation of the appropriate institute, be permitted to proceed to the second year of the D.C.L. program without being required to submit a Master's thesis.

At a stage in the program of studies as determined by the Institute candidates must pass an oral examination, the purpose of which is to test their general knowledge of the field of their research studies. Further, candidates will be required to defend their theses before a jury appointed by the Faculty of Graduate Studies and Research and consisting of five adjudicants, including at least two who are not members of the Faculty of Law. To qualify for the degree the thesis submitted must be a significant contribution to legal scholarship, evidencing in concept and execution the individual work of the candidate, and in a form suitable for publication.

INSTITUTE OF AIR AND SPACE LAW

STAFF

Director – NICOLAS M. MATTE, OC., QC
Assistant Director – J.-L. MAGDELENAT
Professor – I.A. VLASIC
Associate Professors – M.A. BRADLEY; P.P.C. HAANAPPEL
Auxiliary Professors – G.F. FITZGERALD: J.G. THOMKA-GAZDIK; J.J. SMITH
Lecturer – D. JOHNSTON

Degrees and Diploma

The Institute of Air and Space Law operates within the Faculty of Law. The Institute provides facilities for advanced study and research in Air and Space Law and related problems of interna-

tional law for qualified law graduates or others with appropriate qualifications. The Institute offers a Diploma in Air and Space Law and the degrees of Master of Laws (LL.M.) and Doctor of Civil Law (D.C.L.).

Diploma

Applicants for admission must hold a law degree of high standing from an approved law school in any part of the world or must have an equivalent professional standing. Working competence in the English language is required but examinations and other written work may be presented in French. All candidates must provide evidence of the subjects covered in their prior law studies and of their scholastic standing together with two suitable references.

The closing date for receipt of completed applications is February 1st of the year for which the candidate is applying.

A candidate who satisfies the residence requirements of one session and who passes the prescribed examinations will be awarded the Diploma in Air and Space Law.

The prescribed courses are:

387-610A INTRODUCTION TO AIR AND SPACE LAW.

387-611A PUBLIC INTERNATIONAL AIR LAW I.

387-612A PRIVATE INTERNATIONAL AIR LAW I.

387-615A ECONOMICS OF AIR TRANSPORT.

387-616A COMPARATIVE METHODOLOGY.

387-621A PUBLIC INTERNATIONAL AIR LAW II.

387-613B GOVERNMENT REGULATION OF AIR TRANSPORT.

387-614B SPACE LAW I.

387-618B AIRCRAFT FINANCE

387-622B PRIVATE INTERNATIONAL AIR LAW II.

387-624B SPACE LAW II.

387-631B PUBLIC INTERNATIONAL AIR LAW III.

387-617D TERM PAPER.

Degree of Master of Laws

A degree in law is a prerequisite for admission to the Master's program. A working competence in the English language is required but examinations and written work including theses may be presented in either English or French. All candidates must present evidence of the subjects covered in their prior law studies and of their scholastic standing together with two suitable references.

The prescribed courses are as those set out above for the Diploma, but, in addition, the candidates must present an acceptable thesis on a subject approved by the Director. In order to be allowed to submit a thesis, candidates must have obtained a mark of at least 65% in each of the courses or seminars for which they are registered. No candidate may receive the Diploma and the Master's degree for the same course of studies. A candidate who has already received the Diploma in Air and Space Law may be accepted as a candidate for the Master's degree, but will be required to register for one additional academic term.

Upon approval of the supervisor and of the director, Master's students may register for a term in the summer to fulfill part of the residence requirements.

Degree of Doctor of Civil Law

Candidates for the degree of Doctor of Civil Law must hold the degree of B.C.L. or LL.B. from McGill University or its equivalent from another university. As a rule, a candidate who does not already hold a Master's degree will be required to complete the Master's degree before being accepted for the Doctoral program. A candidate who has obtained the Master's degree or its equivalent from another university will, as a rule, be required to complete the courses prescribed for the first year of the Master's degree. If the student's performance is not of sufficiently high standard to justify admission to the Doctoral program, he/she will not be permitted to proceed anyfurther, but may be permitted to submit a Master's thesis to qualify for the Master's degree. If the candidate's performance is of sufficiently high standard, he/she may be permitted to proceed to the second year of the Doctoral program without being required to submit a Master's thesis.

The degree of Doctor of Civil Law is predominantly a research degree, and will be awarded on the basis of a thesis that represents an original contribution to the development of legal science. The thesis may be presented in English or French. All prospective candidates must provide evidence of the subjects covered in their prior law studies and of their scholastic and professional standing, together with two suitable references. The degree will be awarded, at the earliest, after the completion of three years from the first postgraduate registration of the candidate at McGill University. In the case of a candidate who holds the M.C.L. or LL.M. degree of McGill or its equivalent from another university, two years of resident study beyond the Master's degree are required but may be reduced to one year with the approval of the Executive Committee of the Faculty of Graduate Studies and Research on the recommendation of the Graduate Studies Committee of the Faculty of Law. In general, this non-resident year should be spent at another university or similar institution.

INSTITUTE OF COMPARATIVE LAW

STAFF

Professors – P.-A. CRÉPEAU *(Director);* A. de MESTRAL; H.P. GLENN; E. GROFFIER-ATALA; J.P. HUMPHREY; W. TETLEY
Associate Professor – M. SOMERVILLE; Y.-M. MORISSETTE
Sessional Lecturers – P. CUMYN; R. KOURI; E. RICHARDSON

The Institute of Comparative Law operates within the Faculty of Law. As a centre of comparative legal studies, the Institute provides facilities for graduate work, advanced studies and field research in areas of Public and Private Law. The Institute is also responsible to the Faculty of Graduate Studies and Research for graduate studies. The Institute offers the degrees of Master of Laws (LL.M.), Master of Civil Law (M.C.L.) and of Doctor of Civil Law (D.C.L.).

Requirements for Master of Laws and Master of Civil Law Degrees

An applicant must hold the degree of B.C.L. or LL.B. or its equivalent.

An adequate working knowledge of the English language is required from all applicants. Applicants who wish to pursue studies in Comparative Law or in a field which, in the opinion of the Director, require knowledge of French or of another language must possess adequate working knowledge of that language.

All applicants must present satisfactory evidence of the subjects covered in their prior law studies, of their scholastic or professional standing, and of their linguistic proficiency in English, together with not less than two suitable references.

Courses and Registration

Three terms of residence study at McGill University is the normal minimum requirement for a Master's degree. Upon approval of the supervisor and of the director, students may register for a term in the summer to fulfill part of the residence requirements. There is no uniform program of studies which every candidate must take. Candidates follow a program of studies, determined by the Director, which in as far as possible is fashioned to meet their particular needs as determined by their prior legal experience and aspirations.

As a rule, a candidate must take during the first two terms of the academic year a minimum of five courses. In addition, a candidate with a civil law background will normally be required to select at least one full-year undergraduate course from the common law program, while a candidate with a common law background will normally be required to select at least one full-year undergraduate course from the civil law program. The courses may be selected, subject to the Director's approval, from the seminars provided by the Institute and any of the advanced courses forming part of the curriculum for the B.C.L. or LL.B.

Upon request, a candidate may register as a half-time student and complete the prescribed course work in two academic years.

Candidates will be required to submit a thesis on a subject approved by the Director. The thesis may be submitted either by the end of the third term of residence study or at any date not exceeding four years from initial registration. In the latter case, the thesis, with the permission of the Director, may be prepared *in absentia.*

In order to be allowed to submit a thesis, candidates must have obtained a mark of at least 65% in each of the courses or seminars for which they registered.

Most of the courses provided by the Institute and the Faculty are given in English, but a number of subjects may be offered in French.

Examinations, term papers and theses may be written either in English or French.

COURSES

I – GENERAL

389-520A INTRODUCTION TO COMPARATIVE LAW. (2 hours, first term). Introduction to the comparative method; differences and similarities between the world's legal systems; a detailed study of selected topics.

389-621A TUTORIAL. (2 hours, first term). Research on specific topics under the guidance of members of the teaching staff.

389-622B TUTORIAL. (2 hours, second term). Research on specific topics under the guidance of members of the teaching staff.

II – COMPARATIVE AND INTERNATIONAL COMMERCIAL LAW

389-530A COMPARATIVE COMPANY LAW. (2 hours, first term). A comparative survey of the principal corporate models and the different approaches to the problems of management supervision, fiduciary duties, non-capital participation, securities regulations, conflicts in cross-frontier mergers and the social responsibilities of corporate bodies, in U.S.A., the United Kingdom, France, West Germany and Canada.

389-531A INTERNATIONAL BUSINESS TRANSACTIONS I. (2 hours, first term). An introduction to international business law designed to familiarize students with the range of laws, national and international, applicable to international business transactions. The course will cover the subject at three different levels: a) private law applicable to

international business transactions, international sales, etc; b) federal regulation, export controls, antidumping, export insurance; c) international law; bilateral trade agreements, GATT, etc. The focus of the course will be Canadian. However, comparative materials are included and research on problems arising in other legal systems will be encouraged.

389-532B INTERNATIONAL BUSINESS TRANSACTIONS II. (2 hours, second term). An advanced research seminar dealing with: a) Canadian direct investment abroad; b) foreign direct investment in Canada – this part is devoted to an analysis of the *Foreign Investment Review Act;* c) the international settlement of investment disputes. Students taking this seminar should have some knowledge of economics, commercial law and international law.

389-533A RESOLUTION OF INTERNATIONAL DISPUTES. (2 hours, first term). A seminar dealing, on a comparative basis, with conflict of jurisdictions and recognition of foreign judgments, as well as arbitration between parties to international contracts, with particular reference to international conventions.

389-534A COMPARATIVE PRIVATE INTERNATIONAL LAW I. (2 hours, first term). The comparative study of basic rules of conflict of laws and enforcement of foreign judgements in the civil and common law systems, with particular reference to international and inter-regional unification efforts. French and English will be used in this seminar.

389-536A EUROPEAN COMMUNITY LAW I. (3 hours, first term). Institutions of the European Economic Community (Council Commission Court of Justice, European Parliament) within the legal framework of the Treaty of Rome. Particular emphasis on the role of the Court of Justice in shaping the laws of the EEC. Various aspects of the substantive law of the Community will be examined: free movement of goods, labour, services and capital, the harmonization of national legislation and the law concerning competition.

- **389-537B EUROPEAN COMMUNITY LAW II.** (2 hours, second term). A study of the management of the Community's resources (capital, goods and labour) through Community policies, e.g. competition policy, the proposed European Company and harmonization of national company laws and the social and regional policy. The course will also deal with the impact of this management by the Community on Europe and on the outside world. In this context the contractual link between Canada and the EEC as well as the ACP-EEC Convention of Lomé will be discussed.

389-538B COMPARATIVE PRIVATE INTERNATIONAL LAW II. (2 hours, second term). An advanced research seminar on contemporary problems relating to choice of law, conflicts of jurisdictions and recognition of foreign decisions in the field of civil responsibility. French and English will be used in this seminar.

389-539B INTERNATIONAL TAXATION. (2 hours, second term). This course will cover the Canadian tax treatment of the export of goods and services, carrying on business in other countries, establishing foreign subsidiaries, iInternational employee transfers and real estate investments, foreign currency fluctuations, international reorganizations, foreign holding companies, offshore shipping and captive insurance companies and international joint venture and partnerships.

389-541B INTERNATIONAL BUSINESS ENTERPRISES. (2 hours, second term). Introduction to the evolving legal and managerial structure of the multinational enterprise and its impact upon national economies and policies, and to the new strategies of concentration control, intra-enterprise practices and transnational labour relations. The Societas Europaea. (Prerequisite: Comparative Company Law).

389-553B MARITIME LAW II (INTERNATIONAL CONVENTIONS). I(2 hours, second term; not given in 1979-80). An advanced seminar dealing with international maritime conventions in respect to collisions, jurisdiction in respect to collisions, limitations of liability, maritime liens and mortgages marine insurance, salvage and the interpretation of those treaties. Canadian, American, British and French judgments and legislation in respect to those conventions will be compared.

III – COMPARATIVE PRIVATE LAW

389-534A COMPARATIVE PRIVATE INTERNATIONAL LAW I. (2 hours, first term). For details, please see Section II.

389-538B COMPARATIVE PRIVATE INTERNATIONAL LAW II. (2 hours, second term). For details, please see Section II.

- **389-550B COMPARATIVE CIVIL LIABILITY.** (2 hours, second term). A comparative study of selected contemporary problems in the field of civil responsibility. Areas of concern include: economic loss, privacy, mental suffering, prenatal injury, and the role of strict liability.

389-551A COMPARATIVE MEDICAL LAW. (2 hours, first term). A comparative study of selected contemporary medico-legal problems including civil and criminal liability of doctors and hospitals, consent, medical and hospital contacts, emergency services, organ transplants, death, euthanasia, abortion, sex reassignment, experimentation and medical ethics.

389-552A CONTEMPORARY CIVIL LAW PROBLEMS. (2 hours, first term). A study of contemporary problems in the general theory of contract under the civil law. French will be the main working language of the course.

389-553B MARITIME LAW II (INTERNATIONAL CONVENTIONS). (2 hours, second term). For details, please see Section II.

IV – HUMAN RIGHTS

389-570B COMPARATIVE AND INTERNATIONAL PROTECTION OF MINORITIES' RIGHTS. (2 hours, second term). A seminar adopting an international and comparative law approach to the study of the protection of racial, religious and linguistic minorities; definition of concept; early experiments and the experience of the League of Nations; the United Nations with particular reference to its Sub-Commission on the Prevention of Discrimination and the Protection of Minorities; representative national legal institutions.

Requirements for Degree of Doctor of Civil Law

Candidates for the degree of Doctor of Civil Law must hold the degree of B.C.L. or LL.B. from McGill University or its equivalent from another university. As a rule a candidate who does not already hold a master's degree will be required to complete the master's degree before being accepted for the doctoral program. A candidate who has obtained the master's degree from another university will, as a rule, be required to complete the courses prescribed for the first year of the master's degree. If the candidates' performance is not of sufficiently high standard to justify admission to the doctoral program, they will not be permitted to proceed any further, but may be permitted to submit a master's thesis to qualify for the master's degree. If their performance is of sufficiently high standard and upon recommendation by the Graduate Studies Committee of the Faculty of Law, they may be permitted to p roceed to the second year of the doctoral program without being required to submit a master's thesis.

The degree of Doctor of Civil Law is predominantly a research degree, and will be awarded on the basis of a thesis that represents an original contribution to the development of legal science.

The thesis may be presented in English or French. All prospective candidates must present evidence of the subjects covered in their prior law studies of their scholastic and professional standing and of their linguistic proficiency in English, together with two suitable references. The degree will be awarded, at the earliest, after the completion of three years from the first postgraduate registration of the candidate at McGill University. In the case of a candidate who holds the M.C.L. or LL.M. degree of McGill or its equivalent from another university, two years of resident study beyond the master's degree are required but may be reduced to one year with the approval of the Executive Committee of the Graduate Faculty on the recommendation of the Graduate Studies Committee of the Faculty of Law. In general, this non-resident year should be spent at another university or similar institution.

F8 DEPARTMENT OF POLITICAL SCIENCE

STAFF

Professors – MICHAEL BRECHER; THOMAS BRUNEAU; J.R. MALLORY; BALDEV RAJ NAYAR *(on leave 1982-83);* CHARLES TAYLOR *(on leave 1982-83);* DALE THOMSON

Associate Professors – BARBARA HASKEL *(on leave 1982-83);* FRANK A. KUNZ *(Chairman);* DANIEL LATOUCHE; PAUL C. NOBLE: SAMUEL J. NOUMOFF; FILIPPO SABETTI; RICHARD SCHULTZ; JOHN SHINGLER; JANICE STEIN; BLEMA S. STEINBERG; JAMES TULLY; HAROLD M. WALLER

Assistant Professors – JEROME BLACK; STEPHEN BORNSTEIN; JOAN DEBARDELEBEN

This Announcement is prepared early in the calendar year and so is likely to need modification by the time the academic year begins. A mimeographed supplement is available at the Department Office, and it is essential for graduate students to consult this supplement in order to obtain a more complete description of the M.A. and Ph.D. program.

REQUIREMENTS

Admission

Students holding a B.A. degree may be eligible for admission. Preparation equivalent to a McGill Honours Program in Political Science is a desirable requirement. Students who have deficiencies in their preparation but are otherwise judged to be qualified are admitted to a qualifying year, in which they undertake advanced undergraduate work.

Normal deadline for applications for admission to the Department is February 15. Applications must be received by that time in order to guarantee the fullest consideration. Later applications will be considered as long as there are places in the program. All applicants, including those who have done their undergraduate work at McGill, must submit at least two letters of reference. Applicants whose mother tongue is neither French nor English should arrange for TOEFL scores to be sent to the Department.

The department awards a number of teaching assistantships each year and students who are admitted to the graduate program are automatically considered for such an award. The deadline for applications for these awards is March 1.

Requirements for the M.A. Degree

There are three requirements:

1. Seven one-term courses of which at least four must be at the graduate level in Political Science.
2. An Oral Certification Examination.
3. A thesis to demonstrate proficiency in research.

Candidates for the M.A. degree follow a program approved on an individual basis by the Department. All students who wish to be considered for the Ph.D. program are evaluated on the basis of their M.A. program. Only a small number of students are permitted to go on for their doctorate. A pass for the M.A. degree does not necessarily imply permission to proceed to the doctorate.

Requirements for the Ph.D. Degree

There are five requirements:

1. Course Requirements
   (a) Students must take at least one course of one semester length in each of the following five areas:
   Philosophy of the Social Sciences,
   International Relations,
   Comparative Politics - Developed Areas OR Comparative Politics - Developing Areas,
   Canadian Politics,
   Political Theory.
   Of these five courses, those three which are in the student's Major and Minor fields (see below) must be at the 600 or 700 level. The five courses constitute part of the requirement in 1(b).
   (b) Students must complete 13 courses which would include the 7 courses required for an M.A. program. Ten of these courses must be in Political Science; 7 must be at the 600 level or above.

2. Comprehensive Examinations

   Students must select one Major Field and two Minor Fields. Major Fields are chosen from Political Theory, Comparative Politics - Developed Areas, Comparative Politics - Developing Areas, International Relations, and Canadian Politics. Minor fields are selected from the same list, but the scope of knowledge expected will be narrower. The student will take a written comprehensive examination in the Major field. No later than three weeks after the written, the student will take the Ph.D. oral examination, in order to demonstrate knowledge of the Major and Minor fields.

3. Research Requirement:

   (a) Students must *design* a research project.
   (b) Students must *do* a research project.

   These two requirements may be fulfilled in the following ways:

   (a) Research design:

   Either: (i) Satisfactory completion of research design courses such as 160-612A or others so designated by the graduate student adviser.

   Or: (ii) Preparation of a research design in conjunction with another course. This research design must be certified as satisfactory for the purposes of the requirement by the faculty member involved and by the Supervisor of Graduate Studies.

   (b) Research project:

   Either: (i) Satisfactory completion of 160-612A (Note: Students who complete 160-612A fulfill both parts of the research requirement).

   Or: (ii) Carry out a piece of research approved for the purpose of the requirement by a professor in conjunction with a course and by the Supervisor of GradTsttoltudims.

Within the rubric "research" would be included efforts at empirical verificationof a set of propositions, or an interpretative investigation of a theoretical problem, or a critical review of the literature pointing toward directions for further work.

4. The student must pass an examination in unseen translation from two modern languages (other than English) at the elementary level or from one modern language (other than English) at the advanced level.

5. A dissertation which contributes to the advancement of knowledge in the discipline.

COURSES FOR HIGHER DEGREES

160-601D M.A. ORAL CERTIFICATION EXAMINATION

160-612A EMPIRICAL METHODS. Fundamental principles of empirical research, in which the emphasis will be placed on acquainting the student

with the techniques most commonly used by political scientists. The topics include the design of research projects, procedure in carrying out research, problems of measurement, survey research, scaling, data processing, and data analysis. (This course is given in alternate years).
Professor Waller

- **160-613B SELECTED THEMES IN POLITICAL PHILOSOPHY:** The French Revolution in Contemporary Perspective. Interpretations of the French Revolution by its contemporaries and immediate successors, including Burke, Paine, Carlyle, de Maitre, Bonald and Hegel.
Professor Shingler

- **160-614B CLASSICAL POLITICAL THOUGHT.** An examination of the origins of the Western tradition of political philosophy, with concentration on Plato and his modern interpretators.
Professor Shingler

- **160-615B CLASSICAL POLITICAL THOUGHT.** An examination of Aristotle's *Politics* and *Nichomachean Ethics.*
Professor Shingler

- **160-616B MODERN POLITICAL ANALYSIS.** An introduction to the concepts underlying modern approaches to the study of politics. The scope of the discipline will be delineated and the foundations of empirical research, including the philosophy and methodology of science especially as these apply to social science, will be considered. Various alternatives and critiques will be presented and evaluates. (This course will be offered inalternate years).
Professor Waller

160-617A PROBLEMS IN POLITICAL THEORY. An introduction to some aspects of the question: What is the study of politics? The seminar consists of lectures, oral presentations, discussion and research papers.
Professor Tully

160-618A FEDERALISM. (Open to senior undergraduate students.) This seminar will first deal with the emergence and evolution of the federal concept and the approaches used to reason through federalism at work. The approaches developed will then be applied in a workshop to relevant problems in Canada and other federal systems and societies.
Professor Sabetti

160-621B THE CANADIAN POLITICLA PROCESS. An examination of conceptual problems and fundamental issues in the study of the Canadian political process. The topics include consensus versus conflict approaches, the Americanization of Canadian political science, behaviouralism versus post-behaviouralism, the consensual or class basis of political ideology and culture, the competitive or monolithic character of parties, groups and elites, the responsiveness and initiative of the legislature, executive and administration and the formation and effectiveness of public policy.
Professor Schultz

160-628A COMPARATIVE POLITICS. Examination of alternative approaches to the study of comparative politics. Special emphasis on liberal, pluralist and marxist paradigms of the politics of advanced industrial societies. Issues considered include: the distribution of power, the structure of social classes, the role of the state, the distribution of wealth, the formation of public policy, the distinction between "public" and "private", the role of parties and elections, and democratic control of the economy.
Professor Bornstein

- **160-629A THEORIES AND MODELS OF SOVIET AND EAST EUROPEAN SYSTEMS.** A critical examination of theoretical approaches and models of the Soviet and East European systems, including totalitarianism, interest group, institutional pluralism, bureaucratic, modernization and "new class" approaches, Trotskyist and other Marxist theories of the U.S.S.R., as well as the neo-Marxist writings from the Soviet Union and Eastern Europe. Students will be expected to discuss readings and present papers. (A certain knowledge of the Soviet Union and/or one or more East European systems is assumed).
Professor Debardeleben

- **160-630A TOPICS IN EUROPEAN POLITICS.** Examination of current issues in the politics and political economy of the major West European nations. The seminar is designed to acquaint students with important recent developments as well as with major interpretative debates in the scholarly literature.
Professor Bornstein

157-636A THEORETICAL APPROACHES TO QUEBEC POLITICS. (Open to senior undergraduates and will be conducted both in English and French. A reading knowledge and a minimal ability to understand the two languages is required. It is advised, although not required, to take this course in conjunction with the 157-626B seminar).
In 1982-83: the major theoretical approaches to the problem of nationalism and political ethnicity in industrial societies with specific attention given to Quebec: functionalism and developmentalism, conflict theories, structural approach, consociationalism, configurational analysis. Among authors surveyed: M. Rioux, M. Hechter, G. Bourque, A. Zolberg, L. Hartz and L. Dion.
Professor Latouche

- **160-637B COMPARATIVE PUBLIC ADMINISTRATION.** Three models of public administration will be analyzed in comparative perspective. These include the bureaucratic, the development, and the democratic administration models. Empirical

material will refer to experience in North America, Western Europe and the Third World.
Professor Sabetti

160-647A POLITICAL DEVELOPMENT IN THE THIRD WORLD. Review of theoretical and empirical literature on modernization and development; analysis of key elements in the development process – internal and external compulsions, social mobilization and institutionalization, economic development and social justice, integration; discussion of different models and strategies.

160-649A THE MASS APPROACH TO POLITICAL DEVELOPMENT: CHINA. An examination of the strategy of political and socio-economic development in contemporary China. Topics include: cultural and ideological foundations of socialization, mechanisms of policy adjustment, political and Party organization, decentralization, bureaucracy, and concepts such as telescoping of historic stages, goal motivation, and model emulation.
Professor Noumoff

160-660A STATE AND SOCIETY IN NON-DEMOCRATIC REGIMES. The purpose of this course is to analyze modernization processes and formation of regimes in selected Third World countries. The discussion will be based upon theoretical contributions from Marx and Weber and literature dealing with modernization, delayed industrialization, and corporatism. After the formulation of concepts and categories particular experiences in the Third World will be analyzed.
Professor Bruneau

• **160-672B SELECTED TOPICS ININTERNATIONAL POLITICAL ECONOMY.** This course will examine the connections between domestic political economies and the international political economy. We will study firm responses to changing technologies, to opportunities and constraints, as well as the responses of state governments. Is the analysis of "collective goods" a useful analytical tool in understanding the negotiation of political economy issues?
Professor Haskel

160-675B INTERNATIONAL SYSTEMS. This seminar will examine some of the major approaches, problem areas and concepts in the study of international systems. The dynamics of various types of international systems will be explored as well as selected theories concerning stratification, alliances, conflict and war and subsystems.
Professor Noble

• **160-677A INTERNATIONAL CRISES.** A theoretical and comparative analysis of state behaviour under crisis conditions. Several approaches and methods will be explored: neo-traditional; decision-making; stimulus-response; bureaucratic politics; event data; repetition-reaction; and systemic. In the form of a workshop, the course will compare several crises using the analytic framework of structural empiricism; 1914; Korean War (1950); Berlin (1948, 1961); Cuba (1962); Sino-India (1962); Indo-Pakistan (1965); Arab-Israel (1967-1973). Hypotheses on state behaviour will be tested. (This course is given in alternate years).
Professor Brecher

160-678A STATE BEHAVIOUR. The seminar will examine theoretical and empirical studies of decision-making, the policy-making process, and foreign policy behaviour. The capacity of each approach to explain and evaluate choice and behaviour will be assessed.
Professor Stein

160-679B INTERNATIONAL CONFLICT. An examination of the literature dealing with international conflict. Topics to be covered include the sources of international conflict, strategies and dynamics of conflict, and the management of international conflict.
Professor Steinberg

160-690A,B READING IN POLITICAL SCIENCE. A graduate student may take a one-term reading course per academic year in a particular field and under the supervision of a member of staff.

160-701D Ph.D. GRADUATE GENERAL WRITTEN EXAMINATION. Major Field.

SEMINARS

• **160-715B POLITICAL THEORY.** A seminar in contemporary political science, with reference also to political philosophy and to the psychological bases and sociological affiliations of politics.

160-724B AFRICAN POLITICS. The seminar deals with selected problems in contemporary comparative African politics and political thought. The work of the seminar centres around research papers prepared and presented by participants.
Professor Kunz

160-725A CULTURAL DUALISM. A seminar dealing with various aspects of French-English relations. Different models and analytical approaches will be examined. Students will present research papers for general discussion.
Professor Thomson

• **160-726A CANADIAN LEGISLATURES.** The seminar will examine, in the light of recent research, the role of parliament and provincial legislatures in Canada in the policy-making process. Recent important changes in machinery (e.g. the expansion of committees) will be evaluated in the light of the changing character of Canadian politics and of questions of constitutional theory.
Professor Mallory

157-727B EMPIRICAL STUDIES IN QUEBEC POLITICS. (This seminar is especially recom-

mended although not restricted to students who have taken 157-636A and are interested in more advanced and empirical research on Québec politics). In 1983, the seminar will focus on several instances of peripheral nationalism (Belgium, Spain, Ireland) and on the peculiarities of Quebec nationalism and independentist movements. The emphasis will be on the application of theoretical models to the case of Québec nationalism. Students will undertake to present and discuss their own projects.
Professor Latouche

- **160-728B RESEARCH SEMINAR IN COMPARATIVE POLITICS.** Research materials from Western Europe and North America will be considered and evaluated. Students will present and discuss their own projects.
Professor Waller

- **160-731B POLITICAL IDEOLOGIES.** This research seminar deals with selected problems of comparative political ideologies, their origins, functions and relationship to political action and institutions.
Professor Kunz

- **160-745B MACHINERY OF GOVERNMENT.** This seminar will consist of a detailed examination of a problem in Canadian government and administration. Problems will include topics dealing with cabinet government, parliamentary organization, federalism, public administration and the impact of political forces on them.
Professor Mallory

- **160-747B DEPENDENCE AND DEVELOPMENT.** Research oriented seminar on the problems of dependence and development in the Third World
Professor Nayar

- **160-749A ASIAN POLITICAL PHILOSOPHY.** A graduate seminar designed to permit students with some training in either Asia or Philosophy to examine either the historic or contemporary philosophy of East, South, South-East, or West Asia.
Professor Noumoff

- **160-777A RESEARCH SEMINAR ON INTERNATIONAL CRISES.** This seminar presupposes participants' knowledge of the literature on international crisis covered in Political Science 160-677A. Students will engage in both clinical or indepth research on state behaviour in a specific crisis and comparative aggregate research on a broad range of international crises during the past half century.
Professor Brecher

- **160-778B COMPARATIVE ANALYSIS OF FOREIGN POLICY.** A research seminar dealing with selected topics in foreign policy. Students will be expected to undertake original research from primary sources within their areas of interest.

- **160-779B COMPARATIVE ANALYSIS OF INTERNATIONAL CONFLICT.** Recent research on processes of interstate conflict and conflict management. Focus on studies of conflict escalation and deescalation and on research on strategies of conflict reduction. Readings will include reports of major research projects in Europe and North America. Students will prepare a major paper in which they test competing models of conflict and strategies of conflict management, using data available from major research projects on interstate conflict.

160-780A, 781B READING SEMINAR. A research seminar on a topic that is not covered in the regular seminars, but which is of interest to a group of students and a faculty member. The exact topic for the research papers will be determined by mutual agreement among students and faculty members involved.
Staff

160-799D Ph.D. ORAL COMPREHENSIVE EXAMINATION.

Undergraduate Courses for Qualifying Year and Graduate Students

When it is appropriate to their programs, graduate students may take an undergraduate course approved by their advisers. These courses are listed in the *Announcement of the Faculties of Arts, Science* and in the annual course list prepared by the Department in the Fall.

F9 DEPARTMENT OF PSYCHOLOGY

Stewart Biology Building
1205 Avenue Docteur Penfield
Montreal, PQ
Canada H3A 1B1

STAFF

Professors – A.S. BREGMAN; V. DOUGLAS; W.E. LAMBERT; J. MACNAMARA; R. MELZACK; P.M. MILNER *(Chairman);* R.O. PLIHL: E.G. POSER; J.O. RAMSAY; M. STERN

Associate Professors – F. ABOUD; I.M. BINIK; D.C. DONDERI; A.A.J. MARLEY; W.E. PIPER: T.R. SHULTZ; D. TAYLOR: N. WHITE

Assistant Professors – A.G. BAKER; M. FEUERSTEIN; K.B.J. FRANKLIN; F. GENESEE; M.J. MENDELSON; D.J. OSTRY; M. PETRIDES; M. SEIDENBERG; Y. TAKANE; F. WILKINSON; D. ZUROFF

Honorary and Auxilary Professors – I. BRADLEY; M. BRUCK; J. CONNOLLY; D.G. DOEHRING; B.

DUBROVSKY; M. GOLICK; E. GUTBRODT; R. HARRIS; B. JONES; R. KANUNGO; J. MacDOUGALL; B. MILNER: A. SCHLIEPER; Y. STEINERT

Lecturer – R. AMSEL; P. JENKINS

Clinical Consultants – S. BENAROYA; W. BRENDER: N. GREENBERG; P. GREGOIRE: A. HEBB: R. KACHANOFF: G. NEMETH; A. PUTTERMAN; M. SPEVACK; A. SURKIS

Internship Supervisors – F. AZIMA; L. AZNAVOUR; S. BARZA; J. BEAUDRY; J. BINETTE; S. BURSTEIN; M. CARLIN; J. CHRISTIAN; J. DAVIS; L. DUNSKY; D. DUTIL; F. ENGELSMANN; M. FLAMEN; S. GANDALL; C. GARSON; M. GERBER; J. GRADINGER; L. GREENBERG; C. GUTTMAN; O. HEATH; M. HOOPER; R. KARMEL; E. MILLER; D. LAMBERT; L. POITRAS; S. RIDDELL; C. ROBINSON; Z. ROSBERGER; E. SALAMA; E. SOKOLOFF; J. SHUTER; S. SIROTA; C. SLATER; S. SPRINGER; R. STEVENS: A. TOHARIA: J. TURNER; L.B. TAYLOR, A. WEISS: A. WOZNY

PROGRAMS

Graduate work in the Department of Psychology follows two mainlines: experimental-theoretical and applied. Work in experimental-theoretical psychology leads to the M.A., M.Sc. and Ph.D. degrees in the psychology of human perception, cognition, learning and language, physiological, personality, social, child, psycholinguistics and quantitative psychology. Work in applied psychology leads to the Ph.D. degree in clinical psychology, and under special circumstances the M.Sc. Applied degree program is sometimes awarded.

Facilities for advanced research in a variety of fields are available within the Department itself. In addition, arrangements with the Departments of Psychology at the Allan Memorial Institute, Douglas Hospital, Jewish General Hospital, Lakeshore General Hospital, Lethbridge Rehabilitation Centre; MacKay Centre for Deaf and Crippled Children; Montreal Children's Hospital, Montreal General Hospital, Montreal Neurological Institute and the Queen Elizabeth Hospital, permit graduate students to undertake research in a hospital setting.

For full information about all programs, financial aid, and for application forms, contact the Graduate Admissions Secretary, Department of Psychology, McGill University, Stewart Biology Building, 1205 Avenue Docteur Penfield, Montreal, Canada, H3A 1B1. Telephone 392-5742.

REQUIREMENTS

Admission

Admission to graduate work will depend on an evaluation of the student's research interests and aptitude for original contributions to knowledge or for professional contributions in the applied field. The usual requirement for admission is an honours or majors degree (B.A. or B.Sc.) in Psychology. This includes an introductory course plus six full courses (each equivalent to six semester hours). Experimental psychology, the theoretical development of modern ideas in psychology, and statistical methods as applied to psychological problems (equivalent to an introductory course) are essential. A knowledge of elementary physiology, physics or chemistry, and modern developments in other related biological or social sciences is desirable. Applicants who hold a Bachelor's degree but who have not met these usual requirements should consult a faculty member in their area of interest to determine which (if any) courses must be completed before an application can be considered. Students with insufficient preparation for graduate work may register as special students in the Faculty of Arts or the Faculty of Science, and follow an appropriate course of study. Such registration requires the permission of the Department but carries no advantage with respect to a student's eventual admission to graduate studies.

NOTE: Applicants must submit to the Graduate Admissions Secretary a completed application form, two copies of the personal academic background form, two copies of all university transcripts, two or more letters of recommendation, Miller Analogies and/or Graduate Record Examination scores, and a personal letter, outlining their experience, interests and objectives in psychology. Applicants should note that the deadline for many scholarships and fellowships is two to three months earlier than the application deadline of February 1.

Requirements for the M.A. and M.Sc. Degrees

Candidates must demonstrate a sound knowledge of modern theory, of its historical development, and of the logic of statistical methods as used in psychological experiment. They will be expected to have an understanding of the main lines of current work in other than their own particular field of specialization.

All candidates must take courses 204-650A, 204-651B and 204-660D, and in addition any other course specified by the Department. The primary concern of the candidate, however, is the thesis. A general comprehensive written and oral examination will be held which, in conjunction with the thesis, will determine the candidate's final standing for the degree.

Requirements for the Ph.D. Degree

Candidates for the Ph.D. degree in the theoretical-experimental program must demonstrate a broad scholarship, mastery of cur-

rent theoretical issues in psychology and their historical development, and a detailed knowledge of their special field. A special comprehensive examination is written in one of the following: comparative and physiological psychology, learning and perception, social psychology and personality, measurement, developmental psychology, or any other appropriate area.

Candidates for the Ph.D. degree in clinical psychology must demonstrate a high standard of scholarship in psychology and aptitude for the professional application of psychological knowledge. The clinical program is designed primarily to train senior personnel for work in hospitals and clinics. A number of avenues of specialization are, however, possible. Some students may wish to prepare themselves for careers in university teaching or clinical research; others may have an interest in behaviour disorders in the field of developmental or educational psychology. The minimum time necessary to attain the degree is four years beyond the B.A. or B.Sc. degrees. No intermediate or terminal M.A. or M.Sc. degrees are awarded to students in the Ph.D. clinical program. All students are required to write a thesis and demonstrate research capabilities.

The Department of Psychology does not ordinarily require an examination in a foreign language. It should be noted, however, that all students planning to practise in the province of Québec will be examined on their proficiency in French before being admitted to the professional association.

COURSES AND SEMINARS

204-501A AUDITORY PERCEPTION. (3 credits; 2 lectures, 2 laboratories; Prerequisites: Psychology 204-302A or permission of instructor.)

Basic acoustics and biology of hearing; computer-based analysis and synthesis of sound; basic sensory dimensions, their biology and measurement; recovery of component signals in complex environments; auditory memory; human production and perception of and machine analysis and synthesis of speech; perception of musical sounds. Laboratory project in computer-based analysis and synthesis of sound. Suitable for graduate students or advanced undergraduates with some background in perception or acoustics.

Professor Bregman.

204-601D Reference number for comprehensive examination written by candidates for the M.A., M.Sc., or M.Sc.A. degree.

204-615A DIAGNOSTIC METHODS (CHILDREN).

204-616A PRACTICUM – CHILD DIAGNOSTICS.

204-617B DIAGNOSTIC METHODS (ADULTS).

204-618B PRACTICUM – ADULT DIAGNOSTICS.

204-630A PSYCHOPATHOLOGY.

204-641D BEHAVIOUR DEVIATIONS. Appraisal and Modification.

204-650A ADVANCED STATISTICS I. A course in advanced statistics with specialization in experimental design.

204-651B ADVANCED STATISTICS II. A course in advanced statistics with specialization in regression techniques.

204-660D PSYCHOLOGICAL THEORY. Seminar designed as an introduction to more advanced graduate courses.

204-690 COMPUTERIZED LABORATORY METHODS IN PSYCHOLOGY.

204-701D. Reference number for comprehensive preliminary Ph.D. examinations.

204-705D. Reference number for research project of M.Sc.A. candidates.

204-706G CLINICAL PRACTICUM.

204-707H CLINICAL INTERNSHIP I.

204-708H CLINICAL INTERNSHIP II.

204-710 to 715 COMPARATIVE AND PHYSIOLOGICAL PSYCHOLOGY.

204-716 to 721 LEARNING AND MOTIVATION.

204-722 to 727 PERSONALITY AND SOCIAL PSYCHOLOGY.

204-728 to 733 CLINICAL PSYCHOLOGY.

204-734 to 739 DEVELOPMENT AND LANGUAGE.

204-740 to 745 PERCEPTION AND COGNITION.

204-746 to 751 QUANTITATIVE AND INDIVIDUAL DIFFERENCES.

204-752D PSYCHOTHERAPY AND BEHAVIOUR CHANGE.

204-780D SPECIAL TOPICS IN CLINICAL PSYCHOLOGY.

F10 SCHOOL OF SOCIAL WORK

Wilson Hall,
3506 University Street
Montreal PQ, Canada H3A 2A7
Telephone (514) 392-5040

STAFF

Full-Time

Professors – MYER KATZ *(Director);* LOTTE MARCUS; EDWARD V. SHINER; DAVID E. WOODSWORTH

Associate Professors – SYDNEY DUDER; JUDITH MAGILL; FRANK McGILLY; DIANE REICHERTZ; SHIRLEY STEELE; JAMES TORCZYNER; ELISABETH URTNOWSKI
Assistant Professors – JANE ARONSON *(Assistant Director);* CAROLE CHRISTENSEN; INGRID COOPER; BEN ZION DALFEN; BARBARA HEPPNER; MICHAEL MacLEAN; ERIC SHRAGGE

Part-Time

Associate Professor – SHEILA GOLDBLOOM
Assistant Professors – ZELDA HARRIS; ESTELLE HOPMEYER; JACOB RABY; TRYNA ROTHOLZ; DOROTHY SIROTA; MARGARET-ANN SMITH; CAROL SPEIRS; ANNETTE WERK
Lecturers – DOROTHY BARRIER; MARGARET COSHAN; ANNETTE HEBB; JOYCELYN LePAGE

OBJECTIVES AND EDUCATIONAL PHILOSOPHY

The School of Social Work is a professional school whose primary objective is to prepare students for successful careers and for leadership in the field of social welfare. The goal is to educate students for practice not only in established and well structured services, but alsoin initiating and pioneering new and less explored areas of welfare. Students are expected to acquire the necessary knowledge, values, attitudes and technical skills of professional practice. They are, in addition, helped to develop critical and experimental approaches in the hope that during their professional careers they may contribute to the improvement of practice skill and knowledge and to the development of practice skill and knowledge and to the development of increasingly constructive and humane social policy and organization.

This School is a member of the Canadian Association of Schools of Social Work. Through its membership in this and other national and international organizations, the School is in close touch with significant developments in social work education on the North American continent, and throughout the world.

The School does not select any special practice method or theory, but encourages first the establishment of general competence and from that base supports the choice of the individual student of specialization in specific field of practice.

THE MASTER OF SOCIAL WORK DEGREE

EDUCATIONAL OBJECTIVES

The global objective of the Master's program is the provision of advanced professional training by means of integrated and individualized learning experiences. At a more specific level, the educational goals are:

1. A capacity for critical understanding of the social problems and issues, the population groups, the institutional frameworks and the policy issues pertaining to the chosen-concentration;
2. the development of an advanced skill in a particular mode of practice (broadly defined, see below);
3. the ability to initiate, execute and report on an independent study essentially related to the student's area of concentration.

ADMISSION REQUIREMENTS

Students who have successfully completed a B.S.W. may be admitted to the Master of Social Work program.

Because of the large number of possible candidates, admission to the M.S.W. program is not guaranteed for any person simply by reason of satisfactory completion of a B.S.W.

As a general rule, applicants to the M.S.W. program will have completed course work in statistics and in research methods at the undergraduate level.

DURATION

Three terms. The third term may optionally be taken in the summer, in which case the entire program may be completed within one calendar year. In some cases, part-time study can be arranged.

CONCENTRATIONS

The areas of concentration that are offered in the program include:

Administration
Aging
Child and family welfare
Community change
Corrections
Health services
Industrial social work
Marriage and family counselling
Policy
Youth and school services

The term "Concentration" as used here implies a concern with specific types of social issues and populations, with certain kinds of service-giving organizations or kinds of interventions. It is acknowledged that there can be considerable overlap between these areas and that students' particular interests may link them together. For example, a student interested in Child and Family Welfare or in Health Services, or some other substantive area, has the choice of a program emphasizing direct practice, or one emphasizing administration and policy.

SUMMARY OF REQUIREMENTS

The M.S.W. degree is a second level of professional study, in which students pursue specialized programs at an advanced level. It is normally made up a research component, field practice and course work. The relative emphases of these three parts of the program are determined according to the individual student's goals and direction. Students' contributions to formulating their own programs are emphasized; candidates are required to identify a focussed area in which they wish to extend their knowledge and skills and in which they plan to conduct their research.

All students must complete 45 credit equivalents, distributed as follows:

Research:	Each student must undertake an independent study project, culminating in a formal written report. This may take any one of a number of forms, for example, a library study, or a piece of empirical research involving collection of original data. (12 credits).
Practicum:	This permits the student to develop and demonstrate professional competence at an advanced level. Both the setting and the amount of time involved will depend on each student's professional interests and needs. (From 0 to 12 credits).
Classroom work:	In addition to courses listed in section 5.4 below, this may include tutorials arranged to suit the student's learning priorities. Where it can be arranged, courses may be taken in other departments. (7-11 half courses, equivalent to 21-33 credits, depending on requirements for a practicum).

TIME LIMITATIONS

Full-time students must complete the M.S.W. degree *within four years of initial registration,* and part-time students must complete the degree within five years of initial registration. Under certain conditions, one additional year may be permitted. These conditions are described in the *graduate Faculty Announcement.*

COURSES

- **407-528A ACTIVITY GROUP METHODS.** (3 credits). In this class, play and socializing activities are studied: a) for their value as enjoyable and growth enhancing experiences, b) theoretically and practically as they apply to work with various types, sizes and styles of client groups, c) as a method of developing professional skills, relevant to facilitating personal and interpersonal growth in working with groups, d) as a means of helping students develop an awareness of their own effectiveness as participating group members of leaders.

407-530A SEMINAR ON SOCIAL PERSPECTIVES ON AGING I. (3 credits). Instructors and students from diferent disciplines (sociology, political science, economics, management, social work and others) will discuss issues of demography, age status and roles, attitudes, family and intergenerational relations, retirement, leisure etc. Policies, provisions and services to seniors will be explored and evaluated. Selected senior citizens will participate in this Seminar.
Professors Marcus and MacLean

407-531B SEMINAR ON SOCIAL PERSPECTIVES ON AGING II. (3 credits). Instructors and students from disciplines such as biology, psychology, geriatrics, education, religious studies, social work and others will focus on certain aspects of aging, i.e. physiological, psychological, cultural, health and disease in old age, death and dying etc. The provision of services and their impact on the recipients will be evaluated. Senior citizens will participate in the Seminar.
Professors Marcus and MacLean

407-532A/B SEMINAR IN INTERNATIONAL SOCIAL WELFARE. (3 credits). Discussion based upon intensive study and reports on problems in selected countries. Particular emphasis on identifying major social problems, understanding the social forces bearing on those problems and considering appropriate professional approaches to aid in their solution.
Professor Woodsworth

407-533B SOCIAL WORK PRACTICE IN FORMAL ORGANIZATIONS. (3 credits). An examination of the ways in which social workers as professionals deal with their organizational environment. Theory and research on formal organizations, case material and the students' own experience will form the basis for discussion. Organizational "games" illustrative of the strategies used in such situations will be constucted and played out. (Pre-requisite 407-452a).
Staff

407-534B SOCIAL WORK PRACTICE WITH INVOLUTARY CLIENTS. (3 credits). An examination of the issues and practice problems encountered by practitioners working with involuntary clients in settings such as courts, youth protection agencies and total institutions. Topics will include reaction of the client and worker to the "involuntary" situation, the ethics and efficacy of "coerced treatment" and practice interventions with involuntary clients. Students will be expected to

draw on their own experience with these issues.
Professor Cooper

407-602A SOCIAL VALUES AND SOCIAL POLICY. (3 credits). Analysis of value assumptions underlying social welfare policies. Identification of major themes in political and economic thought that contributed to Canadian concepts of welfare. Students are required to contribute actively in seminar discussions.
Professor Woodsworth

407-603B THE POLITICS OF SOCIAL WELFARE. (3 credits). Concepts and methods of political analysis of welfare problems and policies (interest group activities, political influence, elites), and features of the political environment in which welfare programs are developed and administered (ideologies, political institutions, constitutional aspects).
Professor McGilly

407-605B THE ECONOMICS OF SOCIAL WELFARE. (3 credits). Social problems generated by the mixed-capitalist system, the economic approach to social policy, and the limitations upon the range of economic solutions to social problems. Illustrations of the basic research methods used by economists, as applied to such problems as unemployment and poverty.
Professor Heppner

407-606B CHILDREN'S NEEDS, PROBLEMS, RESOURCES. (3 credits). A study in depth of the needs of children and the related problems, with consideration of relevant treatment modalities and community resources for problem solution.
Professor Reichertz

407-607B SOCIAL SERVICES IN THE SCHOOL SYSTEM. (3 credits). An examination of public schools as community institutions with emphasis on possible roles of the social workers in relation to pupils, parents, teachers, and administration.
Professor Dalfen

407-608B ADVANCED SEMINAR IN CORRECTIONS. (3 credits). A critical analysis of selected correctional programs, in terms of their underlying theoretical base and their effectiveness in modifying criminal behaviour.
Professor Cooper

407-609A SEMINAR ON HEALTH ISSUES. (3 credits). A critical examination of issues relating to health and disease. Focus will be on health concepts and health models with an emphasis on prevention and adaptation. Determinants of health and stress at different life stages. Comparative approaches to treatment and service delivery will be discussed.
Professor Marcus

407-613A COMPARATIVE APPROACHES TO PSYCHOPATHOLOGY. (3 credits). An examination of attitudes and responses to emotional disturbances and breakdown of individuals in contemporary society. A discussion of the changing patterns of psychiatric services and the use of a variety of health professionals and community resources. Illustrations of treatment approaches whenever feasible.
Dr. D. Kussin

407-614A ADMINISTRATION. (3 credits). An examination of problems and issues in social service administration in the light of classic and current organization theory, focussing principally upon the development of the managerial role.
Professor McGilly

407-615A CRITICAL STUDY OF RESEARCH IN SOCIAL WORK. (3 credits). Analysis and evaluation of published social work research, and research of particular relevance to social work, from other disciplines.
Professor Shiner

407-620A/B/D THE FIELD OF PRACTICE SEMINAR. (3 credits). The seminar will provide an opportunity for integration of knowledge, theory and skills drawn from the practicum and other courses, and for close examination of special characteristics of the field. Organization of the seminar will vary with the field of practice. All students are required to participate in the seminar in one field.
Staff

407-621A INDIVIDUAL CASEWORK. (3 credits). A seminar incorporating case examples drawn from student practice. Focus will be on concepts of psychodynamic theory, understanding individual functioning – and dysfunctioning. Emphasis will be on issues of psycho-social assessment, treatment processes and analysis of the therapeutic relationship.
Professor Raby

407-622B FAMILY ASSESSMENT AND TREATMENT. (3 credits). A seminar on techniques of family diagnosis and therapy; comparative models of family treatment, systems perspectives on family interaction, family rules and myths. Emphasis will be on the role and behaviour of the family therapist.
Professor Reichertz

407-623A MARITAL COUNSELLING. (3 credits). Theories on sources of marital distress with communication/interactional focus. Conflict perspectives on marriage, techniques for counselling couples seeking reconciliation. Separation/divorce counselling.
Professor Katz

407-624B COMMUNITY AND SOCIAL ACTION. (3 credits). The aim of this course is to develop an understanding of the organizing process at the

grass-roots level. Emphasis is placed upon communitypower and conflict, the development of organizing strategies, and the application of such strategies in groups and movements dedicated to social change.
Professor Torczyner

407-625A PLANNING THEORY AND SERVICE DELIVERY. (3 credits). Planning theory and practice as they relate to community organizing and social service delivery. It focuses on 3 themes: 1) theories of planning and their applicability to social work practice, 2) the planning process (steps and process), 3) an examination of major planning issues in service delivery.
Professor Torczyner

407-627A,B SOCIAL WORK PRACTICE WITH GROUPS. (3 credits). An advanced course in practice with emphasis on comparative theories of groups.
Professor Reichertz

407-631B SEMINAR ON METHODS OF SUPERVISION. (3 credits). The seminar is designed for students who, on graduation, will assume immediate responsibility in a supervisory role. The seminar will deal with theories and models related to supervision of personnel engaged in different levels of practice and a variety of services with people.
Professor Magill

407-633B EVALUATION OF SOCIAL WELFARE PROGRAMS. (3 credits). Program evaluation is examined in terms of the problems giving rise to the program, the objectives of the programs as specified outcomes, the program components, measurement of program variables, evaluation of outcomes, and the audience to whom the evaluation is relevant. Action research requirements are to be distinguished from evaluation requirements. Obstacles to program evaluation are noted.
Professors Shiner and McGilly

407-635B ADVANCED SEMINAR IN SOCIAL WORK PRACTICE WITH CHILDREN. (3 credits). Seminar on direct work with children and adolescents. Topics include: issues in personality assessment; research related to child development; techniques of direct practice with children. Students are expected to provide current practice examples for analysis and discussion.
Professor Speirs

407-636A,B TUTORIAL IN SOCIAL WORK. (3 credits). An individual or small group tutorial in which students will work independently in conjunction with the instructor. The student will undertake a major project related to the area of specialization.
Staff

- **407-637A,B HOUSING POLICY.** (3 credits). An examination of the dynamics of private and public housing in Canada and policies which have been designed to influence the provision of housing. Particular attention will be given to Canadian and Québec policies and international comparisions will be made, notably, England, France, Sweden, United States. Specific topics include: housing demand and supply, taxation and subsidies, public housing, cooperative housing, rehabilitation, tenant and landlord relationships.

407-638A,B ANALYSIS OF INCOME MAINTENANCE PROGRAMS. (3 credits). Analysis of income maintenance programs as expressions of social policy. Emphasis will be placed on alternative theoretical perspectives for understanding the purposes and impacts of public policy. Students will offer proposals for policy change using the seminar as a work group.
Professor Woodsworth

407-639A,B SOCIAL WORK IN SOCIOLOGICAL PERSPECTIVE. (3 credits). The main defining features of social work and their interconnections are to be studied in the context of the sociologyof occupations. Through comparision of several fields of work, this course will seek to identify some of the characteristics of professionalization of occupations with particular attention to the helping professions.
Staff

407-640A INTERGENERATIONAL RELATIONS. (3 credits). A seminar on the relationships between the generations (children, adolescents, middle aged and elderly), with a focus on the position of the elderly. Formal and informal support systems to individuals and families will be examined. Each student will select one stage of the life cycle for an indepth study.
Professor Marcus

407-641B SOCIAL POLICY ANALYSIS. (3 credits). A seminar that reviews available theoretical approaches to the analysis of social policy, examines their ideological and methodological characteristics, and applies them to selected substantive welfare policies.
Professor Woodsworth

407-642A,B TUTORIAL IN SOCIAL WELFARE. (3 credits). This tutorial permits students to pursue studies in special areas not covered in other courses offered, or to study in greater depth subjects covered in earlier work. Emphasis is on the content, operation and analysis of social welfare programs.
Staff

407-643A QUANTITATIVE METHODS IN SOCIAL WORK RESEARCH. (3 credits). A comparative review of the research methods and data sources that are used in social work research and policy analysis, with consideration of the statistical methods and computer programs that are appropriate for each. Topics will include experimental and correlational designs, time series

analysis, and survey research.
Professor Duder

407-644A,B CLINICAL PRACTICE: AN EMPIRICAL APPROACH. (3 credits). An evaluation of clinical practice in social work from an empirical perspective. Individual, family and group treatment interventions are analyzed through single-subject design procedures. Students apply empirical clinical practice in the field. A three-credit course extending over two terms.
Professor Shiner

407-645B CLINICAL PRACTICE SEMINAR. (3 credits). A seminar on social work theories of assessment and treatment. Topics will include: characteristics of the different helping phases, special problems in treatment. Attention will be focussed in this seminar on the social origins of human dilemmas.
Professor Steele

407-646A,B INDUSTRIAL SOCIAL WELFARE. (3 credits). This course will cover: 1) statutory provisions governing work relationships and working conditions; 2) statutory benefits provided to workers; 3) non-statutory benefits provided through employers. These will be studied as factors in the work milieu and as issues in social policy.
Professor McGilly

407-647B ISSUES IN SOCIAL SERVICES ADMINISTRATION. (3 credits). A study of the distinctive characteristics of the relations of social service administrators with clientele, personnel, community and government; problems in the implementation of, and accountability for, policies and programs, problems in finance and budgetting.
Professor McGilly

407-648A,B SPECIAL TOPICS IN SOCIAL WORK. (3 credits). This course will be offered from time to time to deal with topics, of current interest in social work, that are not covered in other courses. Specific content may differ from year to year.
Staff

407-649A,B SPECIAL TOPICS IN SOCIAL WELFARE. (3 credits). This course will be offered from time to time to deal with topics, of current interest in social welfare, that are not covered in other courses. Specific content may differ from year to year.
Staff

407-650A,B,L FIELD WORK PRACTICUM. (3 credits). Supervised educational experience in social work practice integrating practice with theoretical knowledge characteristic of the specialized field. Individual and group instruction. Involves approximately 100 hours of work in a field setting.
Staff

407-651A,B,L FIELD WORK PRACTICUM. (3 credits). See 650 above.
Staff

407-660A,B,D,L FIELD WORK PRACTICUM. (6 credits). See 650 above. Involves approximately 200 hours of work in a field setting.
Staff

407-690H,E,L RESEARCH PROJECT. (12 credits). The major M.S.W. independent study project. The selection of the study problem, systematic approaches to its study, data collection, analysis, interpretation of results and the written report. Individual advising with supplementary group conferences and consultation on project proposals and methodologies.
Staff

F11 DEPARTMENT OF SOCIOLOGY

Stephen Leacock Building
855 Sherbrooke Street W.
Montreal, PQ
Canada H3A 2T7

STAFF

Professors – RICHARD HAMILTON; MAURICE PINARD *(on leave);* WILLIAM WESTLEY.
Associate Professors – ROGER KROHN; ULI LOCHER; PRUDENCE RAINS; GERTRUDE ROBINSON *(on leave second term);* MICHAEL SMITH: MALCOLM SPECTOR; DONALD VON ESCHEN *(Chairperson)*
Assistant Professors – CHARLES CAPPELL; ANTHONY MASI; MORTON WEINFELD
Visiting Assistant Professor – JAMES BURK

REQUIREMENTS

Admission

The Department offers training leading to the degrees of Master of Arts and Doctor of Philosophy in Sociology. For admission to candidacy, applicants must have a Bachelor's degree with a standing equivalent to a Cumulative Grade Point Average (CGPA) of at least 3.0 out of a possible 4. The degree may be either in Sociology – in which case it should be equivalent to the honours B.A. degree at McGill – or it may be in another relevant social science. In the latter case, applicants may be required to take some additional Sociology courses to fill gaps in their background. For a detailed description of courses open to graduate and undergraduates, and of preparation required of McGill University honours students, candidates should consult the *Announcement of the Faculties of Arts, Science.*

For an application to be considered, it is recommended, although we do not require, that applicants submit with their applications the results of the Verbal and Quantitative aptitude tests of the Graduate Record Examination. Arrangements to take the Graduate Record Examination should be made directly with the Educational Testing Service, Box 955, Princeton, New Jersey 08540, USA.

In addition, all applicants are asked to submit two letters of recommendation and two certified copies of their university-level grades along with examples of their written work. Preference will be given to those applications completed by March 1st.

Candidates who lack sufficient preparation in the social sciences, but whose academic record justifies eventual admission to the graduate program, must register for a qualifying year during which they are required to take courses to widen their knowledge of Sociology. These courses are normally those which are open to graduate and undergraduate students. Candidates must achieve at least B average standing in these courses and an average in all courses of at least 75%; in general, they must, in the opinion of the Department, have achieved sufficient preparation in the subject matter of Sociology before they will be allowed to proceed further into graduate work. Courses in statistics, research methods and sociological theory are required of all qualifying candidates.

A number of teaching assistantships are available to qualified graduate students. Students who wish to be considered for such assistantships should inform the Graduate Adviser of the Department.

Requirements for the M.A. Degree

The program of study is designed to give students an advanced understanding of a major field in sociology, of current methods of sociological research, and of some principal theoretic issues in the discipline. During this year, therefore, students are required to take courses in social theory, quantitative and qualitative methods, as well as in substantive fields.

In addition, to provide them with some research experience students are required to prepare a short thesis.

Three terms of resident study at McGill is the normal minimum requirement for a Master's degree. The program will normally include four courses per term during the first year. It is also recommended that students enroll in a Thesis Topic course each term during the second year. For some candidates, additional courses may be required, if, in the opinion of the Department, the candidate lacks sufficient preparation.

Further details about the requirements are available and can be obtained from the Graduate Secretary in the Department.

Requirement for the Ph.D. Degree

A minimum of three years of study is required. There are two years of course work for the Ph.D. program; the first year being identical with the program for the M.A. degree. A student whose M.A. was obtained within this department is required to take six substantive seminars to fulfill the Ph.D. course requirements. A student whose M.A. was obtained from outside this department is required to take eight substantive seminars in order to complete course requirements.

Applicants who have received a master's degree at a university other than McGill should submit a copy of their thesis or evidence of equivalent research experience with their applications for admission.

Course Requirements

Students enrolled in the Ph.D. program must take the same courses in Theory and Methods that are required of M.A. students in their first year in residence at McGill, unless their earlier training justifies exempting them from those requirements. The program will include eight seminars during the first year, four of which must be the core courses in theory, quantitative and qualitative methods (unless previously exempted by the Graduate Studies Committee of the Department). If exemption is obtained for one or more seminars, another one must then be substituted in its place. During the second year, it is recommended that students enroll in a Thesis Topic course each term.

During the second Ph.D. year, candidates must complete any outstanding course requirements.

Examination Requirements

Candidates must take examinations in two special fields of sociology.

These examinations must be completed and the student's candidacy for the degree established no later than the end of the third year of graduate study.

Language Requirement

Candidates must demonstrate ability to read French with high proficiency or to read another language which is relevant to the candidate's field of research. The language requirement should be met by the end of the third Ph.D. year.

Thesis Requirement

Candidates are required to submit a thesis on an approved topic. Approval of the topic will usually follow submission of a research proposal. Further details on the requirement and regulations for thesis and for the fields in which the Department is prepared to direct research may be obtained from the Graduate Secretary of the Department.

COURSES AND SEMINARS

All 300, 400 and 500 level courses listed in the Faculty of Arts announcement are open to graduate students and can be taken for graduate credit provided appropriate work load adjustments are agreed upon with the instructor.

N.B. As this announcement is prepared early in the year, it is subject to change. We advise all students to check with the Department prior to registration. A final listing of course offerings will be made available in the summer.

166-504A SEMINAR: QUANTITATIVE METHODS OF SOCIAL RESEARCH I. (3 credits. Prerequisites: Sociology 350 and 361 or equivalents). Techniques for the analysis of quantitative information, especially as contained in large, *survey type*, data sets and the use of computer programs, in particular statistical packages such as SPSS and SAS, in social science research. Topics include: cross tabulations with an emphasis on multidimensional tables, partitioning of Chi-square, and measures of association; multiple correlation and regression with an introduction to path analysis and, a discussion of the relationship between individual and aggregate level statistical analyses, with special reference to demographic techniques. Statistical and computer laboratory time will also be arranged in order to give each student the maximum opportunity to master the materials.
Professor Masi

166-505B SEMINAR: QUANTITATIVE METHODS OF SOCIAL RESEARCH II. (3 credits. Prerequisite: Sociology 504: Quantitative Methods of Social Research I). Methods appropriate for the analysis of data typically used in quantitative inquiries and theory construction are explained. The analysis of categorical data using log-linear techniques is emphasized; the general linear model is introduced; exploratory techniques such as cluster analysis are discussed.
Professor Cappell

- **166-510B SEMINAR: SOCIAL STRATIFICATION.**

166-515B SEMINAR: THE SOCIOLOGY OF MEDICINE. (3 credits).

166-520A SEMINAR: MIGRATION AND IMMIGRANT GROUPS. (3 credits. Prerequisite: 15 credits in the Social Sciences). Major demographic, economic and sociological theories of internal and international migration. Emphasis on empirical research on migration and immigrant groups. Students will be expected to participate in research projects on immigrant groups in the city of Montreal.
Professor Locher

166-550A SEMINAR: THE SOCIOLOGY OF DEVELOPING SOCIETIES. A theoretical and empirical comparison of alternative explanations of underdevelopment in the Third World. Particular attention will be given to the impact of structural factors such as systems of social stratification, structures of power, relations of domination and subordination between nations, and the like. Students will be expected to write and deliver a research paper, and to participate extensively in class discussion.
Professor Von Eschen

166-552A SEMINAR: CURRENT SOCIOLOGICAL THEORY. (3 credits. Prerequisite: 451, The History of Sociological Theory). Examination of some major areas of current sociological work within a sociology of knowledge and science framework by focusing on apparent "growth edges" in the discipline; an attempt to relate this current work to its background theoretic traditions, to illustrate it by present work in this Department, and to relate it to the student's own work.
Professor Krohn

- **166-618A SEMINAR: THE SOCIOLOGY OF WORK.**
- **166-619B SEMINAR: COMPARATIVE ETHNIC POLITICS.** (3 credits).
  Professor Pinard
- **166-620B SEMINAR: SOCIAL MOVEMENTS.**
  Professor Pinard
- **166-622A SEMINAR: PROBLEMS IN MASS COMMUNICATIONS.**
  Professor Robinson
- **166-623A SEMINAR: CANADIAN CULTURAL AND COMMUNICATIONS POLICY.**
  Professor Robinson
- **166-625B SEMINAR: INDUSTRIAL SOCIOLOGY: THE ORGANIZATIONOF PRODUCTION.**
- **166-626B SEMINAR: INDUSTRIAL SOCIOLOGY: UNIONIZATION AND STRIKES.**

166-627B SEMINAR: POLITICAL SOCIOLOGY. (3 credits). Key theories and empirical areas of political sociology will be explored. Major works relevant to each theme will be read and analyzed. Among the areas to be discussed are political socialization, the social psychology of political behaviour, class and politics, political organizations, elite studies. A research paper in one of the areas covered will be required.
Professor Hamilton

166-629A SEMINAR: ETHNICITY AND PUBLIC POLICY. (3 credits). Major themes in the theoretical literature on ethnicity. Public policies with direct and indirect implications for inter-ethnic relations will be studied. Policies affecting areas such as language, education, immigration, employment and promotion, multiculturalism and welfare. Examples drawn from several multi-ethnic societies. Political, constitutional, and economic problems associated with these policy initiatives.
Professor Weinfeld

- **166-630B SEMINAR: MIGRATION AND MULTICULTURALISM IN QUÉBEC AND CANADA.**

166-633A SEMINAR: THE STUDY OF COMPLEX ORGANIZATIONS. (3 credits).
Professor Westley

- **166-635B SEMINAR: MULTI-LEVEL ANALYSIS.**
- **166-638A SEMINAR: THE DEMOGRAPHIC TRANSITION AND SOCIAL CHANGE.**
Professor Masi

166-640B SEMINAR: QUALITATIVE METHODS OF SOCIAL RESEARCH. (3 credits). Qualitative methodology, mainly participant observation, structured and unstructured interviewing. Students begin a research project using these techniques and submit field notes once a week. Weekly sessions to discuss the field notes from the previous week. The goals are mastery of the technical aspects of field work, recording techniques, asking questions, getting access, and the analysis of data. Students should give careful thought to choice of a topic for research, since many such projects mature into thesis.
Professor Rains or Spector

166-650A SEMINAR: SOCIO-TECHNICAL ANALYSIS AND ORGANIZATIONAL CHANGE. (3 credits). This seminar will cover the basic literature on the Socio-Technical Analysis of Organizations, a social change school generated at the Tavistock Institute in the 1940's and now having increasing impact on organizational analysis and change in western industrial countries. Students will be expected to read and analyze the basic theoretical literature and to cover a large number of case histories. A small field project using the socio-technical approach will be required of each student.
Professor Westley

166-655A SEMINAR: THE ROLE OF THE MEDIA IN NATIONAL DEVELOPMENT AND SOCIAL CHANGE. (3 credits). A country's media policies evolve both in relation to its own changing communications needs and to new regulatory demands presented by international bodies. Three issues are currently being discussed and have implications for Canada's communication future. The seminar will explore: the cultural imperialism thesis and its adequacy and relevance to Canadian media policy; the role of media in national development; the structure and analysis of international news flow and Unesco's proposal for a "new World Information Order" to remedy the information disparities between the developed and the third world.
Professor Robinson

- **166-661A SEMINAR: SOCIOLOGY OF KNOWLEDGE.**
Professor Krohn

166-670B SEMINAR: COMPARATIVE URBANIZATION IN THE THIRD WORLD. (3 credits). The growth of cities in Third World countries with special attention to Latin America. Competing theories of rural-urban migration, of labor market changes, and of assimilation of peasants to city life will be evaluated in the light of modern empirical studies.
Professor Locher

- **166-671A SEMINAR: DEVIANCE AND SOCIAL CONTROL.**

166-672B SEMINAR: SOCIAL CHANGE. (3 credits). An examination of a new mode of analysis in sociology: World Systems Theory, a radically different way of looking at the social world. It springs out of, but differs substantially from classical Marxist thought. It involves a radical reinterpretation of an unusually wide range of phenomena: the causes of the division into rich and poor nations, the sources and solution of racial and ethnic stratification, the causes of economic crises in the advanced capitalism nations, the nature and dynamics of socialist regimes, the causes of social movements, the levers of change in society, and the like. An interpretation of historical change over the last 600 years. Focus on specific topics. Comparison with alternative perspectives, mainly classical Marxism. Thus it can be regarded in part as a seminar on Marxist theory.
Professor Von Eschen

- **166-680D SEMINAR: APPLIED SOCIOLOGY AND ALTERNATIVE ORGANIZATIONS.**
Professors Smith and Westley

- **166-681D SEMINAR: COLLEGIUM ON SOCIAL MOVEMENTS.**
Professors Pinard and Von Eschen

166-682A SEMINAR: TOPICS IN ECONOMY AND SOCIETY. (3 credits). Attempts by sociologists to analyse economic processes. Topics to be dealt with (although not necessarily all in one year) are: social sources and consequences of inflation; the institutionalization of industrial conflict; instrumentalism and the functioning of labour markets; the problems and advantages of the use of altruism in the delivery of some services.
Professor Burk

- **166-684D SEMINAR: DEVIANCE AND THE LABELLING PERSPECTIVE.**

166-685D SEMINAR: SOCIAL PROBLEMS. (3 credits).
Professor Spector

166-720A,B READING IN SOCIAL THEORY.
Staff

166-730A,B READING AND RESEARCH.
Staff

1982-83
FACULTY OF GRADUATE STUDIES AND RESEARCH

McGill University
Montreal

Section "G"
Education

NOTE: The letters, which form part of course numbers, (in timetable) have the following significance:
A - Fall term course
B - Winter term course
D - Full session course (Fall and Winter terms)
T - Summer session part II course
L - Summer session part I course
C - Summer session part II course
E - Combined Winter and Summer term course
G - Combined Summer and Fall term course

All courses listed in this announcement will be offered in 1982-83 unless a ● appears left of the course number.

The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

Legal Deposit II 82

1992-93
FACULTY OF GRADUATE STUDIES AND RESEARCH

McGill University
Montreal

Section "G"
Education

G1 EDUCATION

STAFF

Professors – L.B. BIRCH; M. BUTEAU; R. EDWARDS; T.A. FRANCOEUR; F. GREENE; N. HENCHEY; M. GILLETT; G.H. McKAY; R. MAGNUSON; E. PEDERSEN; D.C. SMITH *(Associate Dean);* F. STINSON; H.A. STUTT; R.E. WILKINSON

Associate Professors – G. ANDERSON; M.W. AULLS; M. BAIN; C. BARNABE; R.G. BOULIANE; D. BURGESS; M. BURNS; R. BUTT; G. CARTWRIGHT; N.G. COCCALIS; J. DEREVENSKY; P.X. DIAS; J.G. DONALD; F. DUMONT; R. EARLE; T.O. EISEMON; W. FLOCH; P. FRANCOEUR; C.H. FREDERIKSEN; M. FRITH; G. GEIS; R. GHOSH *(Director of Graduate Studies);* G. GROEN; J. HANRAHAN; J.K. HARLEY; J. HARRIS; L. HAWORTH; A. HUM; G.B. ISHERWOOD; M. JEFFERY; J.K. JOBLING; P. LANDRY; R. LAVERS; W. LAWLOR *(Associate Dean);* C. LUSTHAUS; K. MACONOCHIE; G. MAGER; D.Q. MARISI; T. MAROUN; S.W.C. McNICOL; D. MODAFFERI; D. MONTGOMERY; H. MORRISON; G.I. NEIL; S. NEMIROFF; J.M. O'HARA; D. PARE; F. PINTO; S. RAPAGNA; J. REBUFFOT; E. REID; G. REID; H. RIGGS; D.R. RILEY; W. RYAN; W.F. SEARLES; B.M. SHORE; D. SOKOLYK; R. TALI; W.M. TALLEY; G. TERROUX; L. THIBEAULT; G. TORBIT; H. TRUMP; E.P. WEBB-HEARSEY; J. WOLFORTH

Assistant Professors – H. AMORIGGI; R. BRACEWELL; M. CARLEY; J. DALLAIRE; B. HOSHIZAKI; M. LAFERRIERE; J. SLAUGHTER; E. WEINRUB-LUSTHAUS

GENERAL INFORMATION

The Faculty of Education offers programs leading to M.A., M. Ed. and D.Ed. degrees. Applicants should be advised that such degrees do not confer certification to teach in the Province of Québec.

The M.A. degree provides opportunities for suitably qualified teachers and other professionals to deepen their knowledge and to gain some facility in research in a major area of education. At present the areas in which students may elect to specialize are Educational Administration, Comparative Education, Educational Psychology, Counselling, History of Education, Physical Education and Philosophy of Education. Students complete their degree work by submitting a thesis in the area of their specialization.

The structure of the M.Ed. degree is different since its purpose is to enable candidates to gain added competence in a professional field, e.g., Educational Administration, Counselling, Reading, Special Education, Educational Psychology, Elementary Education or in the teaching of a specific school subject. Programs leading to M.Ed. degrees in teaching subjects are offered in Art, Biology, Chemistry, English, Physics, Mathematics, Geography, History, Home Economics, French as a Second Language, and English as a Second Language. A thesis is not a requirement of the M.Ed. programs, though students in the teaching subject programs are required to submit a monograph, and others may be asked to serve a period of internship.

The Faculty has one formal doctoral program. This is a professional degree in Counselling which is intended to enable selected students who have already attained the level of the M.Ed. in Counselling to continue their studies in breadth and depth and to carry out a significant inquiry to be reported as a doctoral thesis.

At present the Faculty of Education does not offer a formal program leading to a Ph.D. However, under the Regulations set out in the Announcement of the Faculty of Graduate Studies and Research, it is possible for exceptionally well qualified candidates to proceed to the degree of Ph.D. by making direct application to the Dean of the Faculty of Graduate Studies and Research. Such candidates should have a very clear idea at the outset of the area of their prospective research. They should first contact the department concerned to discuss with them the proposed research. Currently the Departments of Administration and Policy Studies in Education, Educational Psychology, and Elementary Education have doctoral students under this provision.

Language Requirement for Professions

Québec law now requires that candidates seeking admission to provincially-recognized professional corporations must possess a working knowledge of the French language, i.e. be able to communicate verbally and in writing in that language. See *General Information and Faculty Regulations* section.

Entrance Requirements for M.A. and M.Ed. Degrees

For most programs, candidates must hold a bachelor's degree from a recognized university with a standing equivalent to a C.G.P.A. of 3.0. A concentration of courses, related to the area chosen for graduate work, equal to a major program, is usually required, and also a Permanent Québec Teaching Diploma, or its equivalent, with a second class standing. Exceptionally well-qualified candidates may sometimes be admitted to master's programs in certain departments before they have completed the two years of probationary teaching. Teacher certification requirements may be waived for candidates applying for the M.A. program in Educational Psychology, Physical Education, History of Education, Comparative Education and

Philosophy of Education. The M.A. or M.Ed. in Counselling does not require prior teacher certification.

Most departments have additional entrance requirements which may be found in the entries of individual departments.

Program Requirements and Length of Study for M.A. and M.Ed. Degrees

All master's programs require for graduation the successful completion of eight full courses or its equivalent. In the M.A. programs candidates are required to do five full courses and a thesis, the latter having a weight of three full courses. In most M.Ed. programs candidates do six full courses and a monograph or internship, the latter having a weight of two full courses.

Most programs can be completed by full time or part time study or by a mixture of both. A Summer Session program is offered but it is not normally possible to complete degrees wholly by summer attendance.

All master's degrees in the Faculty of Education take at least three semesters of full time study, or the equivalent in Summer Session and part time work, to complete.

Entrance Requirements for D.Ed. Degree in Counselling

Candidates for the Doctoral program in Counselling must hold the degree of M.Ed. (Counselling) from McGill University,or its equivalent, and have maintained good second class standing in the degree. In addition applicants for the program must supply personal and educational data, take prescribed tests and engage in an interview procedure. For otherwise acceptable candidates who do not meet the academic requirements, courses of qualifying study may be prescribed.

The is no second language requirement.

Length of Study for D.Ed. Degree in Counselling

A minimum period of two years full time study, including the summer session between the two academic years, is required to fulfill the residency requirement for this degree. A maximum period of seven years may elapse between entrance into the program and the attainment of the degree.

Fees

Students must register every year and must be registered for the Session in which they graduate. For tuition fees see the *General Information and Faculty Regulations* Section.

Applications

Applications for admission to the Faculty of Graduate Studies and Research for degrees in Education should be made to the *Director of Graduate Studies, Faculty of Education, McGill University, 3700 McTavish St., Montreal H3A 1Y2, PQ.* Summer session and Winter session candidates in Counselling, Educational Administration, Educational Psychology and M.Ed. in Special Education are required to apply by March 1. Other candidates applying for admission for the first time and wishing to start in the Summer Session must apply before April 1, and those interested in commencing studies in the fall must apply by July 3. Applications in some programs will close prior to these deadlines when all places have been filled.

NOTE: Admission to the Faculty of Graduate Studies and Research for graduate programs in Education is made by the Dean of the Graduate Faculty on the basis of the undergraduate record and satisfactory professional training. Admission to the appropriate courses is made by the individual departments of the Faculty of Education, and where appropriate, by the departments concerned in other Faculties in consultation with the Faculty of Education.

CENTRE FOR TEACHING AND LEARNING SERVICES

The Centre is an independent University unit having the overall goal of helping to improve learning and teaching in higher education. Most of its academic staff are in the Faculty of Education. In addition to its service role to faculty and the University, the Centre can accommodate a small number of graduate students interested in making use of the Centre as a unique site for research in instructional development, evaluation, and educational innovation. Such arrangements are most often made through programs in Educational Psychology, but have been possible through other programs as well.

The centre is located in the Macdonald Harrington Building. For more information please telephone 392-8320.

KEY SESSIONAL DATES

August 16	Deadline for submitting doctoral theses for Fall Convocation.
August 23	Deadline for submitting masters' theses for Fall Convocation.
September 13	Lectures begin, Fall term.
November TBA	Convocation.
December 10	Lectures end, Fall term.
January 5	Lectures begin, Winter term.
January 14	Last day for January registration.
March 14	Deadline for submitting doctoral theses for Spring Convocation.

March 21	Deadline for submitting masters' theses for Spring Convocation.
April 8	Lectures end, Winter term.

DEPARTMENT OF EARLY CHILDHOOD AND ELEMENTARY EDUCATION

Chairman – Professor G. BENNETT

M.Ed. Elementary Education

Program Director – Professor L.H. HAWORTH

Additional Admission Requirements

1) Candidates should give evidence of teaching experience (3 years in the elementary school setting is normally required).
2) Miller Analogies Test.
3) Personal interview with the program director of the M.Ed. Elementary Education program.
4) Two letters of recommendation: preferably one from a university level instructor; one from an education supervisor. Letters of reference must deal with the applicant's suitability to undertake graduate studies in Elementary Education.
5) A letter from the candidate indicating career plans.
6) An introductory half-course in statistics should form part of the undergraduate program of the prospective candidate. Students accepted who have not taken such a course will be required to take 414-610A,B Educational Measurement, or an acceptable substitute.

Program Requirements

Students are required to complete six full courses and a monograph as outlined below:

Required Courses

433-642 LANGUAGE DEVELOPMENT IN ELEMENTARY SCHOOL CHILDREN. (half course). An examination of theoretical and research literature dealing with significant problems and trends in language development. Emphasis is on the recent research contributions in oral language development.

433-648 PHILOSOPHICAL APPROACHES TO ELEMENTARY EDUCATION. (half course). A study of the main philosophical approaches to education as reflected in the writings of selected authors such as Plato, Aquinas, Rousseau, Dewey and Illich. The course focusses on specific issues, such as the role of the teacher and the nature of the curriculum, with special reference to elementary education.

433-649 PERSPECTIVES ON ELEMENTARY SCHOOL PRACTICES. (half course). An examination of the reciprocal impact of elementary school child and milieu. The focus will be on elementary schools and the elaboration of mandated curriculum and pedagogical approaches appropriate for the needs of pupils, parents, and communities.

414-668 PERSONALITY THEORY IN RELATION TO THE SPECIAL CHILD. (half course). See M.Ed. Special Education for description.

414-669 COGNITIVE DEVELOPMENT IN RELATION TO THE SPECIAL CHILD. (half course). See M.Ed. Special Education for description.

433-643 ELEMENTARY SCHOOL CURRICULUM I. (half course). The concepts of curriculum and their relationship to educational theory and practice in the elementary classroom will be examined. Emphasis will be given to the design and organization of the overall elementary school curriculum.

433-644 ELEMENTARY SCHOOL CURRICULUM II. (half course). Models of curriculum development, implementation, and evaluation will be examined from the perspective of the teacher's role in improving the elementary classroom curriculum.

433-690 MONOGRAPH PREPARATION AND PRESENTATION. (two full courses). Tutorial to provide guidance in the definition, preparation, and presentation of a substantial investigative report dealing with a perceived problem in elementary education. Final presentation to be made in both oral and written form to a committee composed of faculty members and one outside faculty member when deemed necessary.

Optional Courses

The equivalent of two and one half courses from the option areas listed below will be selected with the approval of the student's adviser.

433-641 LINGUISTICS FOR ELEMENTARY SCHOOL TEACHERS. (half course). Applications of some of the findings of linguistic science to the teaching of reading and other language arts. The philosophies, methods, and findings of general linguists are explored for curricular implications.

433-616 READING COURSE. (half course). (Reserved for a special topic in Elementary Education).
NOTE: In addition to the courses listed above, a number of courses in reading instruction are available. See M. Ed. Teaching of Reading for descriptions and consult with your adviser concerning the selection of an appropriate block of courses.

433-635 CURRICULUM DESIGN AND EVALUATION IN ELEMENTARY MATHEMATICS. (full course). Establishment of criteria for assessment of mathematics curricula. Design and evaluation of mathematics curricula both before and after implementation.

433-636 THE ELEMENTARY MATHEMATICS PROGRAM. (half course). Comparison of inductive and

deductive approaches to the teaching and learning of mathematics. Selection and use of textbooks, guides, learning aids and tests. Special problems of adapting and implementing materials to the Québec course of study in Elementary Mathematics. Integration of mathematics with other disciplines, such as science. Testing and evaluation of achievement in mathematics.

433-637 SPECIAL TOPICS IN ELEMENTARY MATHEMATICS. (half course). Choice of topics from the following: the development of mathematical ideas from a historical standpoint in the context of their relevance to the elementary program. The unity in diversity of mathematics. The impact of calculators and computers on the teaching of mathematics. A review of recent research in mathematics education at the elementary level. Interest topics related to the particular needs of the group.

433-638 CURRICULUM, METHODS AND MATERIALS FOR ELEMENTARY SCHOOL SOCIAL STUDIES. (full course). An advanced course in elementary school social studies education. Examination of various theoretical bases of social studies curricula. Study of contemporary instructional strategies and materials.

433-639 RESEARCH IN ELEMENTARY SCHOOL SOCIAL STUDIES. (full course). An examination of the research literature related to the selection of objectives, instructional strategies and evaluation methods in elementary school social studies. Measuring attainment of objectives. Varied methods of generating new knowledge relating to the social studies.

433-647 INDIVIDUALIZING THE CURRICULUM. (half course). This course will study the concept of individualized instruction in the elementary schools by examining individualized methods and materials, providing the technology and opportunity for producing individualized materials, and examining the means of implementing and managing individualized learning experiences.

433-650 TRADITIONAL EARLY CHILDHOOD PRACTICES. (half course). Traditional practices related to kindergartens, Montessori programs, and nursery and infant schools in Canada, the United States, and other countries. Issues emerging from these practices will be examined.

433-651 MODELS OF PROGRAMS IN EARLY CHILDHOOD EDUCATION. (half course). Alternative models of early childhood education programs, such as the Ypsilanti, the Bereiter-Engelmann, and the Bank Street programs, with special emphasis on their development and implementation. Investigations based on established theories of child development, goals, objectives and ensuing instructional strategies.

433-652 PLANNING THE EARLY CHILDHOOD EDUCATION PROGRAM. (half course). Application of principles and approaches in early childhood education to the design and development of programs. Emphasis will be given to needs of the individual child, basic program elements, materials evaluation, and program direction.

433-653 RESEARCH IN EARLY CHILDHOOD EDUCATION. (half course). Examination of current research in early childhood education related to program designand development, e.g., language development; concept development with reference to number, space, and time; play as a growth process; and individual achievement.

415-641 DEVELOPING THE RELIGION CURRICULUM. (full course) (Catholic Studies). An examination of theory and research basic to the development of the religion curriculum within the elementary school. Particular reference is made to the foundation areas of philosophy and theology. Students will evaluate the content and methods of currently published programs as well as develop curricula of their own.

415-644 PATTERNS OF RELIGIOUS DEVELOPMENT IN ELEMENTARY SCHOOL. (full course) (Catholic Studies). An examination of the awakening of the religious sense in early childhood and a study of its development in terms of traditional and more recent theories.

421-641 DEVELOPING THE CURRICULUM IN MORAL AND RELIGIOUS EDUCATION. (full course) (Protestant Studies). An examination of theory and research basic to the development of the curriculum in moral and religious education within the elementary school. Particular reference is made to the foundation areas of philosophy and theology. Students will evaluate the content and methods of currently published programs as well as develop curricula of their own.

421-644 PATTERNS OF MORAL AND RELIGIOUS DEVELOPMENT IN ELEMENTARY SCHOOL. (full course) (Protestant Studies). An examination of the awakening of the moral and religious sense in early childhood and a study of its development in terms of traditional and more recent theories.

425-671 MODERN SCIENCE CURRICULA FOR BIOLOGY. (half course). See Department of Secondary Education for descriptions.

425-672 INSTRUCTIONAL THEORIES IN MODERN SCIENCE CURRICULA. (half course). See Department of Secondary Education for description.

425-673 SCIENCE CURRICULUM THEORIES. (half course). See Department of Secondary Education for description.

425-674 SCIENCE CURRICULUM DESIGN. (half course). See Department of Secondary Education for description.

429-642 THE ROLE OF MUSIC EDUCATION IN CHILD DEVELOPMENT. (half course). A consideration of the bases of music education as they

relate to child development. Areas of study to include perceptual, conceptual, affective, vocal and motor development.

429-651 CONTEMPORARY APPROACHES TO ELEMENTARY MUSIC CURRICULUM. (full course). An examination of the contemporary approaches to music education at the elementary school level with the aim of developing a viable music education curriculum. Study of strategies and materials.

429-615 SPECIAL TOPICS IN MUSIC EDUCATION. (half course). Selected topics in music education which may include one or several of the following – the integration of music with other curricular areas, music with exceptional children, individualized instruction in music, or other accepted areas of study to meet the changing needs of students.

431-668 INSTRUCTION FOR PUPILS LEARNING ENGLISH AS A SECOND LANGUAGE. (half course). The general body of knowledge common to all second language teaching and learning; modern English structure in a second language perspective based on applied linguistics; teaching techniques and media. (Note: a practicum is an integral part of this course.)

431-651 BILINGUAL EDUCATION. (full course). A survey of the various school situations in which second languages are taught. An intensive study of bilingual education in Canada and the various models of total and partial immersion. Discussion of research findings on such situations, from the point of view of language acquisition, cognitive development, general achievement, and social attitudes.

431-652 TEACHING A SECOND LANGUAGE IN THE ELEMENTARY SCHOOL. (full course). A critical study of FLES programs. Discussion of objectives and survey of research on various approaches and methods. Exploration and evaluation of audio-visual materials and textbooks. Observation and discussion of traditional and innovative techniques: individualized instruction, team teaching, open areas. The second-language classroom. Projects.

M.Ed. Reading

Program Director – Professor F. GREENE

Additional Entrance Requirements

1) Pre-application counselling by mail, phone or in person is strongly encouraged.
2) The candidate must have successfully completed as least 12 undergraduate level credits in reading, language-arts, composition, linguistics, literature or TESL. It is also required that at least one of the courses presented to meet this requirement be either Children's Literature or Literature for Young Adults. Courses proposed by the candidate to meet this requirement may be evaluated during pre-admission counselling if desired. For candidates lacking this background, many appropriate courses are offered through McGill's Centre for Continuing Education. Suggestions may be made during pre-admission counselling.
3) Four letters of recommendation are required: two from past university level instructors; one from an education supervisor, one from the candidate indicating knowledge of the program, personal goals and any additional information which might be helpful to the decision committees.
4) Applications will close each spring as space in the program is filled.

Program Requirements

Students are required to complete the equivalent of 16 three-credit courses. In the section below, the courses are grouped into 6 blocks, A through F. Normally block A will be completed before any other courses, except that the electives, block F, may be taken at any time. Courses in blocks B and C may be taken in any order. Unless special permission from the Department has been given blocks D and E will constitute the last 12 credits of the program. Course 427-640, block E, is a full course and covers work done in completing the M.Ed. paper. Electives, block F, are selected by the student with the approval of the Department.

Required Courses

Block A: Core Courses

433-621 READING TRENDS AND ISSUES. (half course). Inventory and synthesis of prior knowledge; overview of graduate study purposes and objectives; student formulation of individual objectives. Emphasis on close examination of current practices and controversies in Reading Education, based on professional literature, organizations, and standards.

433-622 MODELS OF READING. (half course). Careful study of the various models of reading behavior with emphasis on operational definitions of the reading process.

433-623 ACQUISITION OF READING. (half course). Examination of theory and practice regarding successful acquisition of reading. Includes perceptual, cognitive, linguistic, and emotional pre-requisites for reading acquisition; alternative approaches to beginning reading instruction, and their implications for early integration of grapho-phonemic syntactic, and semantic cue systems by beginning readers of any age.

433-624 DEVELOPMENT OF MATURE READING. (half course). Examination of theory and practice regarding successful acquisition of fluent, mature reading. Special attention to development of oral and silent reading fluency; acquisition of meaning in both narrative and expository text

materials; and the development of efficient comprehension and study strategies.

Block B: Theory into Practice Courses

433-626 READING DEMANDS OF SCHOOL SUBJECTS. (half course). Examines the rationale and assumptions underlying content area reading. Problems encountered by students and teachers in reading literature, science, mathematics, social studies, and vocational subjects. Emphasis on research and classroom practice in helping students master subject matter concepts while improving their ability to read.

433-627 LANGUAGE ARTS IN PERSPECTIVE. (half course). Provides an instructional framework for interrelating the language-arts. Special emphasis is given to reading, writing, speaking, and listening as a fact of social and personal communication and, therefore, as a guiding principle for instruction at each level of schooling.

433-628 READING IN A MULTILINGUAL SETTING. (half course). Introduces methods of teaching reading in school settings where English is the language of text, but not the students' native language. Emphasis on methods of developmental and corrective instruction appropriate to learning to read and to becoming a mature reader.

Block C: Assessment Courses

433-630 GROUP MEASUREMENT IN READING. (half course). Applies measurement principles in selecting and constructing group reading measures and in analysing test data. Special emphasis is given to interpretation and use of reading measures for the purpose of making instructional decisions and evaluating group performance.

433-631 INDIVIDUAL ASSESSMENT IN READING. (half course). Examines pragmatic and theoretical aspects of individual reading diagnosis. Both formal and informal observations are discussed. Competency in administering and interpreting individual reading tests is required.

Block D: Remediation Courses

433-633 PRACTICUM IN REMEDIAL READING. (half course). Supervised case studies involving comprehensive diagnostic assessments and planning for and teaching of appropriate remedial reading programs to students having difficulty in reading.

433-634 SUPERVISION OF REMEDIAL READING. (half course). Development and supervision of a remedial reading program involving other teachers as well as parents and children.

Block E: Research Paper

433-640 THE READING CURRICULUM. (full course). Examination of the reading curriculum as a multidimensional concept, which includes local reality, societal context, theoretical rationale, goals and objectives, methods and materials. Emphasis on decision-making as a function of theoretical guidelines and practical constraints. Includes evaluation of a school reading curriculum and culminates in the Master's Paper.

Block F: Electives

The equivalent of three 3 credit courses will be selected by the student with the approval of the program faculty. Students are encouraged to elect courses from other Departments and Faculties. Special topic courses as listed below may also be used to meet this requirement when appropriate.

Special Topics Courses in Reading Education:

433-603 INDEPENDENT STUDY. (full course).

433-616 INDEPENDENT STUDY. (half course).

433-617 SPECIAL TOPICS IN READING EDUCATION. (half course).

433-618 INDIVIDUAL PROJECTS IN READING EDUCATION. (half course).

433-670 SPECIAL PAPER ON THE TEACHING OF READING. (full course).

433-671 PRACTICUM IN THE TEACHING OF READING. (full course).

DEPARTMENT OF SECONDARY EDUCATION

Chairman – Professor MARTIN O'HARA

Program Directors: Professors W.E. SEARLES *(Biology);* P. FRANCOEUR *(Chemistry);* P.X. DIAS *(English);* J. WOLFORTH *(Geography);* H. MORRISON *(History);* E. REID *(Home Economics);* D. MODAFFERI *(Mathematics);* P. LANDRY *(Physics).*

M.Ed. Teaching Subjects

The Department of Secondary Education offers Master of Education degrees in the teaching of Biology, Chemistry, English, Geography, History, Home Economics, Mathematics, and Physics.

Additional Entrance Requirements

1. An undergraduate degree from a recognized university with a major in the field of specialization.
2. Normally, two years of teaching experience with evidence of superior teaching ability, preferably in the field of specialization.
3. Three letters of recommendation from persons having direct knowledge of the candidate's ability, at least one of whom should be a school principal or other senior administrator and one a university instructor.

4. Approval of the candidate by the appropriate academic department.

Program Requirements

The program consists of six full courses and independent study. At least three full courses (or equivalent) are normally selected from the appropriate academic department and are intended to develop the candidate's existing knowledge of the specialist field, and at least two from within the Faculty of Education. All course selections must be approved by the program director in the candidate's field of specialization. The program may be completed full time, or part time in a continuing sequence of summer and evening courses. All requirements for the degree must, in either case, be completed within five years of the date of the candidate's acceptance into the program.

Required Courses

1. Candidates are required to take two full seminars or their equivalent within the teaching subject.

2. In addition candidates are required to complete an independent project as follows:

425-690 MONOGRAPH PREPARATION AND PRESENTATION. The preparation and submission of a major paper or project dealing with some aspect of the teaching of the candidate's specialization and supported by a comprehensive review of the relevant literature. The monograph is to be presented to the candidate's program director after the satisfactory completion of the required course-work and will be written with a view to making an original contribution towards education in the teaching subject.

Optional Courses

The remaining requirements for this program may be met by completing senior undergraduate level or graduate level courses in the Faculty of Education or elsewhere in the university. University regulations also allow, with the prior approval of the program director, for up to two full courses to be taken in a university other than McGill.

Courses to be completed may include the following:

425-603 READING COURSE.

Individualized guided study of a topic in the teaching of the candidates' specialities selected according to their interest and teaching experience.

425-616A,B READING COURSE.

M.Ed. Teaching of Biology

Program Director – Professor WILLIAM E. SEARLES

425-671 MODERN SCIENCE CURRICULA. (half course). An analysis of alternate curricular practices implemented in high schools during the curriculum reform movement of the past decade. The theoretical substantiation of the role of content, process, societal and human values in the curriculum will be examined.

425-672 INSTRUCTIONAL THEORIES IN MODERN SCIENCE CURRICULA. (half course). Instructional theories and designs appropriate for the teaching of biology within the framework of a Modern Science Curriculum.

425-673 SCIENCE CURRICULUM THEORIES. (half course). A survey of the various curriculum theories of the 20th century and the associated curriculum focus.

425-674 SCIENCE CURRICULUM DESIGN. (half course). A seminar course to provide an in-depth study of the selection and organization of subject matter in the development of a science curriculum.

M.Ed. Teaching of Chemistry

Program Director – Professor PEARL FRANCOEUR

425-611 MODERN SECONDARY SCHOOL CHEMISTRY CURRICULA. (half course). An analysis of the science education literature with a view to substantiating the philosophic and psychological basis that guided the curriculum reform movement of the past decade. Present curricular trends in relation to emphasis on theoretical content, process, environmental chemistry and human values will be examined.

425-612 INSTRUCTIONAL THEORIES IN MODERN SCIENCE CURRICULA. (half course). Instructional theories and designs appropriate for the teaching of chemistry within the framework of a Modern Science Curriculum.

425-613 THE APPLICATIONS OF SCIENCE CURRICULUM THEORIES. (half course). A survey of the various curriculum theories of the 20th century and the associated curriculum focus.

425-614 SCIENCE CURRICULUM DESIGN. (half course). An in-depth study of the selection and organization of content in the design of a modern chemistry curriculum.

The following courses will be offered in the Summer School by the Department of Chemistry (see Summer School Bulletin for offerings).

180-606 CHEMISTRY FOR TEACHERS. SPECIAL TOPICS I. (3 hours, for students in M.Ed. programs only). Various topics in chemistry of interest to teachers will be presented. The course content can vary from year to year.

180-607 CHEMISTRY FOR TEACHERS. SPECIAL TOPICS II. (3 hours, for students in M.Ed. programs only). Various topics in chemistry of interest to teachers will be presented. The course content can vary from year to year.

M.Ed. Teaching of English

Program Director – Professor P.X. DIAS

425-662 SEMINAR IN THE TEACHING OF ENGLISH I. (half course). A study of contemporary issues in the teaching of English and their implications for classroom practice.

425-663 SEMINAR IN THE TEACHING OF ENGLISH II. (half course). An examination of major developments in English curriculum. The course will study existing national and local programs, testing and examining in schools, the organization and operation of English departments in schools.

425-664 SELECTED TOPICS IN THE TEACHING OF ENGLISH I. (half course). To provide an opportunity to develop a thorough understanding of theory and practice in an area of the English curriculum, advanced study in one area of the teaching of: writing; developmental and improvisational drama; communication and media studies; literature.

425-665 SELECTED TOPICS IN THE TEACHING OF ENGLISH II. (half course). A continuation of 430-664; a further concentration on the topic already undertaken or a concentration on another area in the teaching of English.

M.Ed. Teaching of Geography

Program Director – Professor JOHN WOLFORTH

425-681 SEMINAR IN THE TEACHING OF GEOGRAPHY I. (half course). The major objective of the course is to promote critical discussion of some contemporary issues in the teaching of geography. The course examines developments in the field of geography (such as the use of quantitative methods, model building, perceptual studies and simulation) and their relevance to the teaching of geography in the schools.

425-682 SEMINAR IN THE TEACHING OF GEOGRAPHI II. (half course). (Continuation).

- **425-683 SEMINAR IN THE TEACHING OF GEOGRAPHI III.** (half course). (Continuation).
- **425-684 SEMINAR IN THE TEACHING OF GEOGRAPHY IV.** (half course). (Continuation).

M.Ed. Teaching of History

Program Director – Professor HARRY D. MORRISON

425-685 SEMINAR (I) IN HISTORY TEACHING. A study, analysis and evaluation of contemporary trends in the teaching of history and of their implications for classroom practice.

425-686 SEMINAR (II) IN HISTORY TEACHING. An examination and critical analysis of selected topics and strategies in history teaching.

M.Ed. Teaching of Home Economics

Program Director – Professor EMILY REID

The program is under revision and details are available from the program director.

M.Ed. Teaching of Mathematics

Program Director – Professor D. MODAFFERI

425-651 SEMINAR. Curriculum design in Mathematics at the Elementary, Secondary or College level. The emphasis in this course is on the realistic applications of mathematics in the sociological-technological environment.

425-652 SEMINAR. Measuring achievement in Mathematics. Mathematical task-analysis; hierarchical structuring of tests; criterion-sampling; item-banking. Use of computer for analysing test data and monitoring individual student competency levels in mathematics.

M.Ed. Teaching of Physics

Program Director – Professor PETER LANDRY

425-641 SEMINAR I. (full course).

425-643 SEMINAR III. (half course).

425-644 SEMINAR IV. (half course).

* Candidates in PHYSICS will also be required to successfully complete the following courses in the Department of Physics, Faculty of Science.

198-602	–	BASIC PHYSICS FOR HIGH SCHOOL TEACHERS
198-603	–	PHYSICAL MEASUREMENTS
198-604	–	MODERN PHYSICS
198-605	–	SELECTED TOPICS IN CONTEMPORARY PHYSICS

DEPARTMENT OF EDUCATION IN THE ARTS

Chairman – Professor G. MAGER

M.Ed. Teaching of Art

Program Director – Professor R.L. STUDHAM

The program is designed to develop professional competence in studio art and to extend academic knowledge in the teaching of art.

Entrance Requirements:

1. B.Ed. Major in Art, B.F.A. or equivalent from a recognized university with a G.P.A. of 3.0 or better.
2. Normally, permanent teaching diploma or its equivalent.

3. Normally, two years of teaching experience.
4. Presentation of portfolio of work and an interview with members of the Department of Education in the Arts.
5. Two letters of recommendation.

Program Requirements:

Candidates will be required to take two full courses in studio art from among painting, printmaking and ceramics; one full course in educational psychology; one full course seminar in the teaching of art; two half courses in art history; and one half-course special paper on the teaching of art. The mounting of an exhibition would complete the program.

Part-time and full-time programs are available.

Required Courses:

426-604 PAINTING. (full course). Independent investigation of specialized problems stemming from areas of knowledge already familiar to the student. These goals will be based upon an evaluation study of the student's undergraduate studio discipline.

426-606 PRINTMAKING. (full course). Individual development of advanced studio work in at least one of the printmaking processes: woodcut, engraving, intaglio, lithography and serigraphy.

426-608 CERAMICS. (full course). Advanced studio work in design and form related to wheel-thrown and handbuilding techniques; glaze technology and methods of calculation; kiln design and construction.

426-612 SEMINAR IN THE TEACHING OF ART. (full course). (Co-requisite: 426-613). Critical analysis and evaluation of contemporary trends in the teaching of art; implementation and evaluation of curricula.

426-613 SPECIAL PAPER ON THE TEACHING OF ART. (half course). (Co-requisite: 426-612). A description and analytical report of a specific project on the teaching of art, selected according to the student's specialization and teaching interests.

ART HISTORY. (two half courses). The courses will be selected from the graduate offerings of the Department of Art History in consultation with the Department of Education in the Arts. The choice of courses will depend primarily on the art history background of the candidate.

416-638 EDUCATIONAL PSYCHOLOGY AND THE TEACHING OF ART. (full course). An exploration of the relations between aspects of educational psychology and teaching of art; study processes which contribute to the practice and appreciation of artistic expression.

426-638 EXHIBITION. (two full courses). A juried exhibition of selected works based upon studio disciplines of specialization.

DEPARTMENT OF PHYSICAL EDUCATION

Chairman – Professor D.R. RILEY

M.A. Physical Education

Program Director – Professor GRAHAM NEIL

Additional Admission Requirements

An undergraduate degree with a major in Physical Education or its equivalent from a recognized university is required. There is a basic two year teaching requirement, but applicants may be considered for admission without this experience.

Whenever possible applicants are expected to arrange an interview with the Program Director as part of the admission procedures.

Program Requirements

The program consists of five full courses and a thesis, usually involving two full years of study. Everyone is required to take 414-602D. The Use of Statistics in Educational Procedures and 434-621D. Thesis Preparation and one full course from the following:

434-662	ADVANCED EXERCISE PHYSIOLOGY
434-664	PSYCHOLOGY OF MOTOR PERFORMANCE
434-665	MOTOR PERFORMANCE OF EXCEPTIONAL CHILDREN
434-666	BIOMECHANICS – ADVANCED KINEMATICS
434-667	BIOMECHANICS — SEMINAR

Beyond this, students may elect to take any of a variety of other graduate courses from this or other faculties, but usually are advised to concentrate their studies in one of the above four physical education areas to best prepare them for their thesis work.

PHYSICAL EDUCATION COURSES

434-621 THESIS PREPARATION AND PRESENTATION. (full course). Seminars on procedures of research and experimental design dealing with the identification of research problems, the collection of data and the analysis and reporting of results. Supervision of the thesis. Successful presentation of the thesis completes the requirements for this course.

434-662 ADVANCED EXERCISE PHYSIOLOGY. (full course). A comprehensive treatment of the behaviour of physiological processes in response to exercise. Emphasis is given in such areas as nature of muscular activity, regulation and fuel utilization during exercise, aerobic and anaerobic work, metabolic, cardiovascular and respiratory adaptation, evaluation of function capacity and exercise testing. Laboratory experience.

434-663 APPLIED EXERCISE PHYSIOLOGY. (full course). A comprehensive coverage of the muscular, respiratory and cardiovascular metabolic effect of acute and chronic exposure to various sports will be examined with this information being applied to the development of training techniques of the athlete, child and adult.

434-664 PSYCHOLOGY OF MOTOR PERFORMANCE. (full course). Critical review of selected research in learning and sport psychology culminating in small group research and analysis.

434-665 MOTOR PERFORMANCE OF EXCEPTIONAL CHILDREN. (full course). A detailed study of the motor performance of exceptional children based on an information processing model of human performance. Attentional, perceptual, and other processes underlying motor performance will be examined with special emphasis on the differences found in these processes with varying degrees of exceptionality.

434-666 BIOMECHANICS – ADVANCED KINEMATICS. (half course). The kinematical analysis of human movement will be performed emphasizing the principles of physics and the mathematical models which underline terrestrial and aquatic locomotion. The implements humans employ for sport, the flight of projectiles which result from throwing, striking, kicking and jumping will also be analysed.

434-667 BIOMECHANICS – SEMINAR. (half course). The purpose of this course will be to familiarize the student with the relevant literature regarding the kinematic and electromyographic analysis of human movement patterns.

434-603 READING COURSE. (full course).

434-616 READING COURSE. (half course).

434-671 EXPERIMENTAL PROBLEMS. (half course). Study in one area of: Ergo-Physiology or Biomechanics or Psychology of Motor Performance or Motor Performance for Exceptional Children. To provide an opportunity to conduct a research project and develop an awareness of the problems involved in the area of concentration under departmental supervision.

434-672 EXPERIMENTAL PROBLEMS. (full course). See 434-671A,B. This course, however, is more intensive and comprehensive in nature.

DEPARTMENT OF RELIGION AND PHILOSOPHY IN EDUCATION

Chairman – Professor M. JEFFERY

M.A. Philosophy of Education

The program focuses on philosophical theories underlying educational thought, policies and issues. The program also allows for the concentration of studies in religious and/or moral educational theory. The student will identify and assess theories so as to guide sound praxis in contemporary education. The student in consultation with the program director plans an appropriate academic profile, taking into account background and academic interests and needs.

Additional Entrance Requirements

1) Personal statement of academic and professional experiences and interests, addressed to the Program Director.
2) At least two letters of reference from persons familiar with the prospective student's academic capabilities.
3) Interview with the Program Director. This requirement may be waived for prospective students residing at a great distance from the University.
4) Normally academic transcripts should provide evidence that prospective students have studied in at least one of the following areas at the undergraduate level: Philosophy of Education, Philosophy, Humanities, History, Social Science.

Program Requirements

Students are required to follow an approved course of study which consists of the equivalent of eight half courses, along with the course entitled Thesis Preparation (423-621) and a thesis. In addition to departmental courses listed below, each student may elect, with the approval of the Program Director, other University approved courses.

423-603 READING COURSE. (full course).

423-616 READING COURSE. (half course).

423-604 SELECTED EDUCATIONAL THINKERS. (half course). A study of the ideas of thinkers representing various schools of educational thought. Authors such as Pestalozzi, Rousseau, Dewey and Illich will be studied.

423-607 VALUES AND EDUCATION. (half course). Different approaches to morality and the teaching of values; value assumptions of the school; emerging value systems and their implications for school curriculum.

423-608 EDUCATIONAL IMPLICATIONS OF SOCIAL THEORY. (half course). An analysis of some of the educational implications of various social and political theories: liberalism, marxism and others.

423-609 EDUCATIONAL AND PHILOSOPHICAL THOUGHT. (half course). An analysis of the educational implications of various philosophical positions concerning the nature of reality and the nature of knowledge.

423-611 PHILOSOPHICAL ASPECTS OF EDUCATIONAL ENQUIRY. (half course). An examination of certain philosophical questions arising from orientations assumed and methods and con-

cepts employed in various areas of educational enquiry.

423-615 SELECTED ISSUES IN CONTEMPORARY EDUCATION. (full course). In-depth analysis of a limited number of issues and problems in education. Several contemporary problems will be selected and a variety of approaches used. The following are examples of issues that may be chosen: education and the future; moral education; teacher education; foundations of curriculum.

423-621 THESIS PREPARATION. (full course).

423-625 SPECIAL TOPICS IN THE PHILOSOPHY OF EDUCATION. (half course). In-depth examination of topics in Philosophy of Education selected from developments prior to the modern era. Content will vary from year to year and will be announced prior to registration. Topics will include studies in classical educational theories, and in historical ideas and their influences on the development of educational philosophies.

423-626 SPECIAL TOPICS IN PHILOSOPHY OF EDUCATION. (half course). In-depth examination of selected topics in modern philosophy of education. Content of the seminar will vary from year to year and will be announced prior to registration. Possible topics include: contemporary educational theories and their influence on educational development; ethics in education; aesthetics and curriculum development; educational professionalism.

423-630 FOUNDATIONS OF RELIGIOUS EDUCATION. (half course). A study of the philosophical and theological bases of religious education and their significance in the formulation of goals and objectives.

423-631 THEORIES OF RELIGIOUS EDUCATION. (half course). A study and analysis of selected and systematic theories of religious education with special emphasis on those elements characteristic of a normative philosophy of education. Among theorists to be studied are: Gabriel Moran, Ninian Smith, George Albert Coe, Marcel Van Caster, Abraham Heschel.

415-641 DEVELOPING THE RELIGION CURRICULUM. (full course) (Catholic Studies). An examination of theory and research basic to the development of the religion curriculum within the elementary school. Particular reference is made to the foundation areas of philosophy and theology. Students will evaluate the content and methods of currently published programs as well as develop curricula of their own.

415-644 PATTERNS OF RELIGIOUS DEVELOPMENT IN ELEMENTARY SCHOOL. (full course) (Catholic Studies). An examination of the awakening of the religious sense in early childhood and a study of its development in terms of traditional and more recent theories.

421-641 DEVELOPING THE CURRICULUM IN MORAL AND RELIGIOUS EDUCATION. (Full course) (Protestant Studies). An examination of theory and research basic to the development of the curriculum in moral and religious education within the elementary school. Particular reference is made to the foundation areas of philosophy and theology. Students will evaluate the content and methods of currently published programs as well as developed curricula of their own.

421-644 PATTERNS OF MORAL AND RELIGIOUS DEVELOPMENT IN ELEMENTARY SCHOOL. (Full course) (Protestant Studies). An examination of the awakening of the moral and religious sense in early childhood and a study of its development in terms of traditional and more recent theories.

DEPARTMENT OF EDUCATION IN SECOND LANGUAGES

Chairman – Professor JACQUES REBUFFOT

M.Ed. Teaching of French as a Second Language

Program Director – Professor MAGDELHAYNE F. BUTEAU

Additional Entrance Requirements

1) The Undergraduate Degree must show a concentration of six full courses in French, including at least one full course in French Literature and two full courses in Linguistics
2) A basic methods course in the Teaching of French as a Second Language
3) Two years experience in Teaching French as a Second Language
4) An assessment interview with the Program Director
5) Joint approval by the Department of Second Languages and the Department of French Language and Literature (Faculty of Arts) and/or the McGill French Summer School.

Program Requirements

1) Four (4) full courses including at least one course in French Literature, one course in Linguistics and one course in French Canadian Literature
2) Four (4) seminars offered by the Department of Education in Second Languages: – 431-643A, 431-644B, 431-645A and 431-646B
3) The submission of a monograph on some topic related to the Teaching of French as a Second Language

The program can be pursued on a full-time or part-time schedule. A minimum of two years of study is required. Part-time candidates generally attend at least two sessions at the McGill French Summer School and evening courses in various departments of the Faculty of Education and of

the other Faculties during the academic year. Nine courses taken at the French Summer School are accepted as the equivalent of three full courses. Elective courses may include courses in Linguistics, Supervision, Group Dynamics, Measurement, Psychology, Communication, Sociology of Education, etc. The individual selection of courses is made in consultation with the Program Director.

Courses:

431-643 PSYCHOLINGUISTICS AND TEACHING FRENCH SL. (half course). Current theory and research in the areas of language acquisition, verbal behaviour, and bilingualism. Examination of implications relevant to the learning and teaching of French as a second language. Seminar conducted in French.

431-644 SOCIOLINGUISTICS AND TEACHING FRENCH SL. (half course). Current sociolinguistic theory and research having implications for the learning and for the teaching of French as a second language; emphasis on the particular aspects of the Québec socio-cultural setting. Seminar conducted in French.

431-645 INSTRUCTIONAL ISSUES IN FRENCH SL. (half course). Current theory and practice related to the following aspects of the teaching of French as a second language; formal, functional and systemic approaches; instructional strategies, teaching styles, classroom interactional dynamics team and peer teaching effective teaching criteria etc. Seminar conducted in French.

431-646 CURRICULUM DEVELOPMENT IN FRENCH SL. (half course). Current theory and practice in the areas of curriculum development, syllabus design, preparation of materials, testing and measurement in so far as they are relevant to the teaching of French as a second language. Seminar conducted in French.

431-690 MONOGRAPH. (full course).

N.B. 1. The Department of Education in Second Languages may also offer other Graduate Courses as electives, depending on the number of applicants and their special needs.

431-603	INDIVIDUAL READING COURSE (full course)
431-616	INDIVIDUAL READING COURSE (half course) Students cannot take both 431-616A and 431-616B.
431-651	BILINGUAL EDUCATION (full course)
431-652	TEACHING A SECOND LANGUAGE IN THE ELEMENTARY SCHOOL (Full course).
431-668	INSTRUCTION FOR PUPILS LEARNING ENGLISH AS A SECONG LANGUAGE (half course).

N.B. 2. Cf. DEPARTMENT OF ELEMENTARY EDUCATION FOR DESCRIPTION OF COURSE 413-651, 431-652 and 431-668.

N.B. 3. 431-647 DIDACTIQUE INSTRUMENTALE ET ENSEIGNEMENT D'UNE LANGUE SECONDE. This course is made available particularly to students attending the McGill *École française d'été.*

M.Ed. Teaching of English as a Second Language

Program Director – Professor MAY FRITH

Additional Entrance Requirements

1. A minimum of 36 university credits including the equivalent of 18 in English literature, the equivalent of 12 in Linguistics and 6 in TESL methodology.
2. Normally, two years' experience in teaching TESL.

Program Requirements

1. The following seminars offered by the Department of Education in Second Languages:

431-623	PSYCHOLINGUISTICS AND TESL
432-624	SOCIOLINGUISTICS AND TESL
431-625	INSTRUCTIONAL APPROACHES IN TESL
431-626	CURRICULUM DEVELOPMENT IN TESL

2. One course offered by the Department of English: – 110-784 Language, Linguistics and Literature (or an equivalent)
3. One course offered by the Department of Linguistics to be selected from the following: – 104-620 Current Issues in Sociolinguistics; 104-680 Theoretical Foundations of Language Teaching Methods; 104-770 Problems of Language Contact.
4. The submission of a monograph on some topic relevant to the Teaching of English as a Second Language 431-690.
5. Two full courses or four half courses at the Graduate level and according to professional needs and academic preparation selected from the following areas after consultation with the departments involved: English, Linguistics, Psycholinguistics, Sociolinguistics, Educational Psychology, Educational Administration, Québec Civilization, Elementary Education, Comparative Education.

This program can be pursued on a full time or part time schedule. A minimum of two years of study is required. The individual selection of courses is made in consultation with the Program Director whose approval must be obtained.

Courses

431-623 PSYCHOLINGUISTICS AND TESL. (half course). Seminar in first language acquisition theory and research and their relevance to the teaching of English as a second language.

431-624 SOCIOLINGUISTICS AND TESL. (half course). Seminar in second language acquisition theory and research within a sociolinguistic perspective. Relevance to the teaching of English as a second language will be emphasized.

431-625 INSTRUCTIONAL APPROACHES IN TESL. (half course). Research and practice in the teaching of English as a second language under the following aspects: historical perspective, methods, instructional approaches and techniques.

431-626 CURRICULUM DEVELOPMENT IN TESL. (half course). Research and practice in the teaching of English as a second language under the following aspects: curriculum development teaching materials, technology and classroom evaluation.

431-701 DOCTORAL COMPREHENSIVE EXAMINATION.

DEPARTMENT OF ADMINISTRATION AND POLICY STUDIES IN EDUCATION

Chairman – Professor RONALD H. TALI

M.A. Comparative Education History of Education

Program Director – Professor J. KEITH JOBLING

Additional Entrance Requirements

1) Normally students should have an Honours or a similar good standing in their undergraduate academic or professional work. They should also have an emphasis in at least one area of the humanities or the social sciences.
2) Well qualified students may be admitted to the program without teaching experience.
3) Whenever practical, an interview is required.

Program Requirements

Students are required to complete five full courses. In addition to program courses listed below, students may, with Departmental approval, elect courses from other programs in the Faculty of Education or from other faculties of the University. Normally only one Reading Course may be taken. The appropriate courses will be chosen in consultation with an adviser.

411-603 READING COURSE.

411-616 READING COURSE. (half course).

411-605 SOCIAL AND EDUCATIONAL FUTURES. (half course). Present social and educational patterns; alternative models of the future, especially superindustrial, ecological-humanistic and authoritarian options; educational implications of these models and their relevance for current educational policy.

411-606 CONTEMPORARY ISSUES IN QUEBEC EDUCATION. (half course). Current trends in educational policy and practice in Québec education, their philosophical and historical foundations and their implications for educational planning.

411-610 SOCIAL FOUNDATIONS OF EDUCATION. An examination of education and society through the eyes of educational historians, educational sociologists, and comparative educators. Particular attention will be devoted to persistent educational problems at home and abroad.

411-614 SOCIOLOGY OF EDUCATION. Specific topics in this course differ somewhat from year to year but in general they deal with education in relation to society as a whole, educational organizations related to each other, the socialization process and the place of education in that process, and the social psychology of learning.

411-615 SELECTED ISSUES IN CONTEMPORARY EDUCATION. (half course). In-depth analysis of a limited numbers of issues and problems in education. Three to five contemporary problems will be selected and a variety of approaches used. The following are some examples of issues that may be selected: education and the future; moral education; teacher education; foundations of curriculum.

411-617 HISTORICAL FOUNDATIONS OF CONTEMPORARY EDUCATION. A study of contemporary issues in education against an historical background. Some of the questions treated in depth will be the changing relations of church and state in education; the problems of mass education; the evolving concept of the university; the impact of the "second industrial revolution" on the school.

411-621 THESIS PREPARATION. (Prerequisites: completion of course work). Seminars for the thesis include the definition of a problem, research design, methodology and the supervision of the thesis. Successful presentation of the thesis completes the requirements for this course.

411-622 STUDIES IN COMPARATIVE EDUCATION. (half course). A study of contemporary educational systems in selected developed and developing countries designed to provide comparative perspectives on the relationship between school and society.

411-638 DEVELOPMENT OF EDUCATION IN CANADA. An historical survey of education in Canada from its beginnings to the present.

411-639 EDUCATION AND DEVELOPMENT. (half course). This course will examine the contribu-

tion of education to development in relation to such issues as social stratification, political development, the returns on educational investments and patterns of socialization in and outside schools in modernizing societies.

411-641 COMPARATIVE STUDIES IN EDUCATION IN WESTERN EUROPE. (full course). An in depth treatment of contemporary education in France and Germany from 1800 to the present in relation to the social forces impinging on it.

411-643 COMPARATIVE STUDY OF EDUCATION IN DEVELOPING NATIONS. (half course). An analysis of colonial and post-colonial educational policies in selected Asian, African and Latin American countries.

411-648 HISTORY OF EDUCATION IN FRENCH CANADA. Consideration of the ideas and institutions relating to education in French Canada from the sixteenth century to the twentieth with particular attention to the historical antecedants of contemporary problems.

411-649 MINORITY EDUCATION IN COMPARATIVE PERSPECTIVE. Comparative study of the dynamics of majority-minority relations and their relevance for educational policy and practice. Special attention will be given to the Québec context.

411-652 COMPARATIVE STUDIES OF EDUCATION IN EAST EUROPEAN COUNTRIES. Analysis of communist theory and educational practice in the Soviet Union and selected Eastern European and developing nations. Similarities and differences between communist and non-communist educational systems and the relationship between education and the political order will be stressed.

411-667 HISTORY OF EDUCATION IN THE 19TH CENTURY. An analysis of the cultural forces that helped shape education in the century of Darwin, Marx, and Freud. Attention will be given to the impact of nationalism, colonialism, and industrialism on educational development.

411-690 RESEARCH METHODS I. (half course). Foundations for understanding research relevant to Administration and Policy Studies in Education: formulating research questions, planning research methods including observation, interview techniques and questionnaires. Experimental and case study designs, and the format of research sports will be examined.

411-691 RESEARCH METHODS II. (half course). Further study of research foundations with emphasis on methods appropriate to particular types of research questions in administration and policy studies. The major goal of the course is to assist students in developing research proposals.

M.A. Educational Administration

Program Director: Professor G.B. ISHERWOOD

Additional Entrance Requirements

(1) Normally a minimum of two years of educational experience.
(2) A statement indicating the candidate's academic experience, professional teacher training (or rationale for its non applicability), teaching and/or other related experience in relationship to future career plans.
(3) Two letters of recommendation from administrative superiors attesting to the candidate's potential as an administrator to be forwarded directly to the Chairman of Educational Administration.

Program Requirements

The candidate must complete four and one half courses plus a thesis as outlined in the following description with the advice of the department.

Required Courses:

411-612 PRINCIPLES OF EDUCATIONAL ADMINISTRATION. (full course). This introductory course deals with the following topics: administration as a field of study, organizations, administrative behaviour, personnel administration, communications. *First Course.*

414-610 EDUCATIONAL MEASUREMENT (half course). See M.Ed. Special Education.

411-621 THESIS PREPARATION. Se the same course number under M.A. Comparative Education, History of Education.

either

411-610 CASE STUDIES IN ELEMENTARY SCHOOL ADMINISTRATION. (half course). The interpretation and discussion of Case Studies relevant to the elementary scene in Québec through the use of role playing discussion, video-taping and simulation exercises. *(Last Course).*

or

411-656 CASE STUDIES IN SECONDARY SCHOOL ADMINISTRATION. (half course). The interpretation and discussion of Case Studies relevant to the secondary scene in Québec through the use of role playing, discussion, video-taping and simulation exercises. *(Last Course).*

Options:

One and one half courses approved by the student's Adviser.

M.Ed. Educational Administration

Program Director – Professor R.H. TALI

Additional Entrance Requirements

(1) Normally a minimum of two years of educational experience.
(2) A statement indicating the candidate's academic experience, professional teacher training (or rationale for its non applicability), teacher and /or other related experience in relationship to future career plans.
(3) Two letters of recommendation from administrative superiors attesting to the candidate's potential as an administrator to be forwarded directly to the Chairman of Educational Administration.

Program Requirements

The candidate must complete the equivalent of eight full courses as outlined in the following description with the advice of the Department.

Required Courses:

411-612 PRINCIPLES OF EDUCATIONAL ADMINISTRATION. See M.A. Educational Administration. *First Course.*

414-610 EDUCATIONAL MEASUREMENT. (half course). See M.Ed. Special Education.

either

411-655 CASE STUDIES IN ELEMENTARY ADMINISTRATION. (half course). See M.A. Educational Administration. *Last Course.*

or

411-656 CASE STUDIES IN SECONDARY ADMINISTRATION. (half course). See M.A. Educational Administration. *Last Course.*

Options in Educational Administration

The equivalent of six additional full courses must be taken. At least four of these from the following:

411-626 LABOUR RELATIONS IN EDUCATION. (half course). The bargaining process within systems of education; emphasis on the process within Québec and comparisons with other provinces. Topics include: bargaining process and structure; the legislative framework; the union movement in education; development, structure and implementation of collective agreements.

411-628 SCHOOL PERSONNEL MANAGEMENT I. (half course). (Prerequisite: 411-612D). The major personnel processes and techniques involved in human resources administration in educational organizations. The course deals with recruitment, manpower planning, selection and the training of school personnel.

411-629 SCHOOL PERSONNEL MANAGEMENT II. (half course). (Prerequisite: 411-612D). Selected school personnel tasks to include job analysis, job evaluation, job enrichment and differentiated staffing. Human motivation and satisfaction will be considered in relation to these personnel functions. (For school administrators actively involved in school personnel work).

411-630 ADMINISTRATION OF EDUCATION IN QUEBEC. (half course). Consideration of the system of education in Québec. The focus will be, first, on the basic legal framework of education in Québec and the principal legal documents, and second, on the educational system in interaction with other social systems and with society as a whole.

411-631 ADMINISTRATION OF EDUCATION IN CANADA. (full course). This course is intended to provide an overview of the structures of education, federally and provincially. Organization, legislation, and provincial commission reports are studied. Comparisons and contrasts between provincial educational programs are considered, with particular emphasis on education in the Province of Québec.

411-632 SCHOOL FINANCE AND THE ECONOMICS OF EDUCATION. (full course). A foundation course in revenue income for education in Canada, in general and in the Province of Québec specifically, as it relates to the ongoing process of budget and school management.

411-635 FISCAL ACCOUNTABILITY FOR THE SCHOOLS. (half course). Consideration of the schools' responsibility to the public in maintaining high quality education within the limitations of accountability and organizational framework. Budgeting and evaluation of pupil progress will be studied as the measures of the schools' fulfilment of responsibility.

411-636 SCIENTIFIC MANAGEMENT AND HUMAN RELATIONS IN EDUCATIONAL ADMINISTRATION. (half course). Study of the major tenets of the scientific management movement and the human relations movement in administration and their applicability to educational institutions. Selected works in both areas will be studied and developed to give students historical insights into modern school management trends.

411-637 BEHAVIOURAL SCIENCES AND EDUCATIONAL ADMINISTRATION. (half course). Study of human behaviour within the school organization. Selected works in the areas of human motivation, group decision making, professionalism etc. will be analyzed.

411-640 CURRICULUM THEORY. (full course). The study of the concepts, definitions, propositions and other constructs that represent systematic views of curricular phenomena. The course will include considerations of the nature of curriculum, influences of the selection and organiza-

tion of content, and models of curriculum development, implementation and evaluation.

411-642 DEVELOPMENT AND ADMINISTRATION OF THE SCHOOL CURRICULUM. (full course). This course deals with the development of the school curriculum at various age levels and in different settings with the organization of the school and the classroom to implement curricular plans. A study will be made of a variety of organizational schemes and of their development and implementation.

411-645 PRACTICUM IN THE SUPERVISION OF INSTRUCTION. (half course). Investigation of past and current theory and research dealing with supervision. Leadership and evaluation as roles of supervision will be analyzed in the school setting, with emphasis placed on supervision as the improvement of instruction and learning. Practical experience will include supervision of student teaching.

411-646 EDUCATIONAL PLANNING AND MANAGEMENT. (half course). An introduction to the theories, techniques, computational methods and evaluation criteria relevant to the design, development and operation of education systems, at the school and school district levels will be examined and related to educational practices, and traditions.

411-647 RESOURCE UTILIZATION IN EDUCATION SYSTEMS. (half course). An introduction to planning - programming - budgeting systems in education. The historical development, theoretical foundations, mechanics, potentialities and limitations of this approach to resource utilization analysis and planning will be discussed with particular reference to those aspects of alternative approaches employed in a proposal for educational systems.

411-650 METROPOLITAN EDUCATION: DEMANDS AND RESPONSES. (half course). Study of local and federated school boards, including political demands and responses, organizational styles, administrative routines, and the interactions between administrators and elected officials.

411-657 CASE STUDIES (POST-SECONDARY). (half course). The consideration and interpretation of case studies in Administration relevant to the post-secondary sector of the educational scene in Québec, through the use of discussion, role playing and simulation exercises.

411-660 COMMUNITY RELATIONS IN EDUCATION. (half course). The basic objectives of this course include: The development of school-community analytical skills based upon relevant sociological and political concepts and techniques; the development of skill in establishing and maintaining effective methods of school-community liaison.

411-661 POLITICS OF EDUCATIONAL DECISION MAKING. (half course). A study of the nature of political and social constraints within which school systems operate at the local, provincial and federal levels. The contributions of such basic social sciences as political science, political sociology and social psychology will be considered.

411-662 POLICY-MAKING IN EDUCATION AT THE PROVINCIAL LEVEL. (half course). The process and sources of influence involved in the development and implementation of educational policies at the level of the Provincial Government.

411-663 POLICY-MAKING IN EDUCATION AT THE LOCAL LEVEL. (half course). The process and sources of influence involved in the development and implementation of educational policies within the local school district.

411-664 RESEARCH SEMINAR ON THE POLITICS OF EDUCATION. (half course). Seminar on theory and research relevant to the study of the political aspects of educational systems.

411-671 THE PRINCIPALSHIP. (half course). A study of the principalship from the perspective of role theory. Analysis of theoretical positions and the findings of recent research into the work of a school principal in terms of role conflict. Both theoretical statements and recent research related to the principalship will be considered.

411-673 LEADERSHIP THEORY AND EDUCATIONAL ORGANIZATIONS. (half course). A study of past and contemporary notions of leadership. The role of the leader in organizations staffed with professionals. The relationship between leadership and personnel and organizational concepts.

411-674 ORGANIZATION THEORY AND EDUCATION. (half course). A study of contemporary organization theory and the school as an organization. The interplay between structural concepts such as authority, hierarchy and centralization will be considered along with human behaviour in organizations.

411-675 SPECIAL TOPICS - SCHOOL ADMINISTRATION. (full course). Contemporary issues in educational administration, which may include such topics as innovation in school organizations, computer-assisted administration, and, labor-management relations.

411-681 PRACTICUM IN THE ADMINISTRATION OF INSTRUCTION I. (half course). A directed analysis of the administrative experience. On-the-job field studies will be developed and interpreted. Departmental consultation and evaluation will be provided on an individual basis and will focus on specific field experience.

411-682 PRACTICUM IN THE ADMINISTRATION OF INSTRUCTION II. (half course). Directed implementation of planned change in an educational organization including observation and evalua-

tion of the effects of change. This experience may be provided on the job, or through simulation or games techniques. Departmental consultation will be provided on an individual basis.

411-683 PRACTICUM IN THE ADMINISTRATION OF INSTRUCTION III. (half course). Planned observation of a specific aspect of administration in a school setting. Practices observed will be examined for their implication on educational systems and for their feasibility in the student's own situation.

411-685 EDUCATIONAL ADMINISTRATION AS A SOCIAL PROCESS. (half course). Study of administrative processes including problem solving, decision-making, leadership, control, cooperation, conflict resolutions and goal setting. Specific emphasis will be placed on the utility of these processes for effecting change in the school.

411-690 RESEARCH METHODS I. (half course). (see M.A. Comparative Education History of Education).

411-691 RESEARCH METHODS II. (half course). (see M.A. Educational Administration).

Options in Other Departments

Courses taken outside the Department must support the candidate's program and have the approval of the program director.

DEPARTMENTOF EDUCATIONAL PSYCHOLOGY AND COUNSELLING J

Chairman – Professor HOWARD A. STUTT

The Department offers graduate degrees in Counselling, Special Education, and Educational Psychology. The Department jointly offers the M.Sc., Applied in Auditory Oral Rehabilitation; for more information contact the School for Human Communication Disorders (Department of Otolaryngology), Faculty of Medicine. All master's degrees in Counselling, Special Education and Educational Psychology require two years or four semesters of full-time study (or the equivalent).

Graduate Degrees in Counselling (M.A., M.Ed., D.Ed.)

Program Director – Professor WILLIAM TALLEY

M.A. Counselling

Additional Entrance Requirements:

1) Normally, the first step is to secure an interview with the Director of the program or his deputy. This may be waived for prospective students residing at a great distance from the University.
2) Additional forms must be filed for admission to the Program
3) Each student is required to take the Miller Analogies Test and the Graduate Record Examination (Verbal, Quantitative and Analytical components). Requirements may be waived for certain applicants. The Program Director will inform applicants further during their interviews.

PROGRAM REQUIREMENTS

Students are required to complete the equivalent of ten half courses in addition to thesis preparation (414-621D) and a thesis. The equivalent of three half courses may be selected by the student within the constraints presented below.

Required Courses

The following courses are offered by the Department of Educational Psychology and Counselling.

414-602 THE USE OF STATISTICS IN EDUCATIONAL PROCEDURES. (full course).

414-621 THESIS PREPARATION. (full course). This course is offered jointly by the programs in Educational Psychology and Counselling.

The following courses are described in the M.Ed. Counselling program:

- **412-602 PHILOSOPHY OF GUIDANCE.** (half course).
- **412-603 THEORIES OF PERSONALITY.** (half course).
- **412-605 INTRODUCTION TO THEORIES IN COUNSELLING.** (half course).
- **412-640 ADOLESCENT DEVELOPMENT.** (half course).

412-641 PSYCHOLOGICAL TESTING. (half course).

Optional Courses

With the approval of the Department, students must elect one half course from the Department of Educational Psychology and Counselling and one full course from the Faculty of Education or other Faculties of the University.

M.Ed. Counselling

THE M.Ed. PROGRAM IN COUNSELLING HAS BEEN REVISED AND THE NEW PROGRAM WILL BE IMPLEMENTED IN SEPTEMBER, 1982.

Additional Entrance Requirements:

See requirements for the M.A. Counselling. In addition, all eligible applicants must possess an undergraduate degree with a major in psychology, or the equivalent (54 credits in psychology and related disciplines), and a cumulative grade point average of 3.0.

It is recommended that applicants have a concentration in developmental, social, educational psychology with courses in such cognate disciplines as sociology or anthropology. Normally, preference will be given to applicants with work experience in public health and educational settings.

Program requirements:

All M.Ed. degree candidates must complete the equivalent of twelve half-courses of which ten are specified and compulsory. The remainder are electives subject to departmental approval. Further, candidates must complete an eight-month internship under departmental supervision (the equivalent of 8 half courses).

THE FOLLOWING COURSES WILL BE REQUIRED OF ALL CANDIDATES AND WILL CONSTITUTE THE CORE PROGRAM:

	412-606	Introduction to Counselling Theory
	412-607	Theories of Counselling
	412-608	Group Counselling: Theory
	412-609	Principles of Individual and Group Tests
•	412-615	Models of Consultation in Counselling
	412-617	Practicum in Individual and Group Testing
	412-624	Group Counselling: Practice
•	412-662	Information Services
	412-665	Practicum in Counselling, I
	412-666	Practicum in Counselling, II

The following courses will be offered periodically and may be taken as electives by students so as to complete or exceed the academic requirement of the equivalent of six full courses before beginning the internship. This does not exclude the possibility of choosing "electives" from other departments of the Faculty of Education or of the University.

	412-616	Individual Reading
	412-620	Advanced Child Psychology
•	412-622	Trends in Elementary School Counselling
•	412-623	Introduction: The Exceptional Child
	412-635	Counselling for Sexual Adjustment
	412-636	Theories of Sex Therapy
•	412-640	Adolescent Development
	412-660	Selected Topics in Counselling
	412-670	Current Trends in Counselling

412-611 and 412-641 are being offered only for students currently registered in the M.Ed. program. They will not be required or available for students entering the program in 1982-83 or later.

The Internship Program

The internship program consists of four components, two of which reflect the general counselling nature of the internship and two other blocks that reflect a specific dimension of the profession which the intern wishes to study in depth. The structure of this internship is as follows:

412-679	Internship, General (I)
412-680	Internship, General (II)

As electives, two of the following:

412-681	Internship in Group Counselling
412-682	Internship in Psychometry
412-683	Internship in Organization and Development of Service Program
412-685	Internship in Vocational and Rehabilitation Counselling

There are a number of tasks which all interns are required to perform irrespective of the internship settings in which they are working. These requirements are in the fields of individual testing, group counselling, and research (the latter including a written report), as well as closely supervised counselling on an individual basis. The amount of this work, over an academic year is the equivalent of 4 full courses, in addition to the twice-weekly supervision sessions with staff and attendant readings.

D.Ed. Counselling

The Program offers three majors: Elementary School Counselling, Secondary School Counselling and Student Personnel Counselling (College and University). Each applicant must select a major when applying.

The offerings in the doctoral program consist of courses in three areas: Foundations of Education, Related Disciplines, and Counselling Psychology.

Additional entrance requirements: see requirements 1 and 3 for M.A. Counselling.

PROGRAM REQUIREMENTS

1) Two full courses in foundations of education unless applicants have the equivalents.
2) One full course in a related discipline in the University.
3) The equivalent of five full courses in the area of their specializations.
4) One year of field work (412-679)
5) A comprehensive examination (412-701)
6) A thesis.

Foundations of Education

Each candidate, in consultation with the Program Director will select a minimum of two courses from the following:

411-I642 DEVELOPMENT AND ADMINISTRATION OF THE SCHOOL CURRICULUM.

413-617 HISTORICAL FOUNDATIONS OF CONTEMPORARY EDUCATION.

413-627 PHILOSOPHIC ANALYSIS OF THE PROBLEMS OF EDUCATION.

414-640 STUDIES IN EDUCATIONAL PSYCHOLOGY: HUMAN LEARNING AND COGNITIVE PROCESSES.

†Descriptions for these courses may be found in the programs of the appropriate Departments.

Related Disciplines

Each candidate, in consultation with the Program Director, will select one or more full courses from offerings in related disciplines available in the University.

Counselling Psychology

All candidates will take the following courses unless they have had their equivalent:

412-620 ADVANCED CHILD PSYCHOLOGY.

• **412-709 ADVANCED THEORY: COUNSELLING MODELS AND SYSTEMS AND SMALL GROUP COUNSELLING.**

412-710 THE DISORGANIZED PERSONALITY.

• **412-711 ADVANCED METHODS OF EDUCATIONAL STUDY AND RESEARCH DESIGN.**

Required Courses in Elementary School councelling Major:

• **412-717 SEMINAR: INDIVIDUAL ANALYSIS AND PROGRAMS FOR EXCEPTIONALITY.**

412-787 SEMINAR: RESEARCH PROBLEMS IN ELEMENTARY SCHOOL COUNSELLING.

412-797 SUPERVISED FIELD WORK IN ELEMENTARY COUNSELLING.

Required Courses in Secondary School Counselling Major:

412-720 SEMINAR: CAREER DEVELOPMENT THEORY, PHILOSOPHY AND ORGANIZATION OF EDUCATIONAL PERSONNEL SERVICES.

412-789 SEMINAR: RESEARCH PROBLEMS IN SECONDARY SCHOOL COUNSELLING.

412-796 SUPERVISED FIELD WORK IN SECONDARY SCHOOL COUNSELLING.

Required Courses in Student Personnel Counselling Major:

412-720 SEMINAR: CAREER DEVELOPMENT THEORY, PHILOSOPHY AND ORGANIZATION OF EDUCATIONAL PERSONNEL SERVICES.

412-788 SEMINAR: RESEARCH PROBLEMS IN STUDENT PERSONNEL SERVICES.

412-798 SUPERVISED FIELD WORK IN STUDENT PERSONNEL SERVICES.

412-770 INDIVIDUAL READING.

Required for all Doctoral students:

412-701 COMPREHENSIVE EXAMINATION.

Graduate Degree in Special Education (M.Ed.)

Program Director – Professor JAMES HANRAHAN

Additional Entrance Requirements

Candidates for this Degree are normally required to hold a teaching certificate and to have completed two years of teaching before entering the program.

1) Two letters of recommendation of teaching ability from a school principal, or consultant, or administrator.
2) Two letters of recommendation from former professors.
3) A personal report describing interest and experience in the field of Special Education.

An introductory half course in statistics should form part of the undergraduate program of the prospective candidate. Students accepted who have not taken such a course will be required to take 414-610 Educational Measurement, or an acceptable substitute.

414-610 EDUCATIONAL MEASUREMENT. (Half Course).

Program Requirements

The program has two main components:

Phase I – Core Curriculum

This part of the program is intended to provide a knowledge basis upon which students make decisions related to the development of their professional needs and interests.

414-642 / 414-643 EDUCATION OF EXCEPTIONAL CHILDREN. (half courses).

414-645 DIAGNOSIS AND ASSESSMENT OF LEARNING PROBLEMS. (half course).

414-646 PRACTICUM: DIAGNOSIS AND ASSESSMENT OF LEARNING PROBLEMS. (half course).

414-654 PRACTICUM: INDIVIDUALIZED CURRICULA AND SPECIAL TEACHING METHODOLOGY. (half course).

414-667 PROBLEMS IN EMOTIONAL DEVELOPMENT OF CHILDREN AND ADOLESCENTS. (half course).

414-668 PERSONALITY THEORY IN RELATION TO THE SPECIAL CHILD (half course).

414-669 COGNITIVE DEVELOPMENT IN RELATION TO THE SPECIAL CHILD (half course).

Phase II – Special Studies, Field Work, and Internship.

A. – Field Experience and Reading/Seminar – 3 courses

414-656 CLINIC: REMEDIATION OF SELECTED LEARNING DIFFICULTIES.

414-665 SEMINAR I: REMEDIATION OF SELECTED LEARNING DIFFICULTIES (half course).

414-666 SEMINAR II: REMEDIATION OF SELECTED LEARNING DIFFICULTIES (half course).

B. – Internship – 4 courses:
414-661
414-662
414-663
414-664

The requirements of the Internship will, in most cases, be satisfied through full-time employment as a teacher in Special Education assignment in either a school or clinic setting for exceptional children. The student is responsible for obtaining the position.

Students will usually include in their program the Special Education courses listed above. However, students with special qualifications or interests may, with the approval of the Department concerned, substitute other graduate level courses offered by the Faculty of Education or by other faculties of the University.

Graduate Degrees in Educational Psychology (M.A., M.Ed., Ph.D.)

Program Director – Professor BRUCE M. SHORE

Research and professional studies are offered in four areas of educational psychology. Each area of study is concerned with basic and applied research relevant to psychological issues of learning, development and teaching, and with the application of research to practical problems in education. The areas focus on the developmental background of the learner, processes of learning, instructional contexts of learning and teaching, and individual and group differences in learning and teaching. Students' research is expected to fit these areas and the research and supervisory interests of the staff. Descriptions of the four areas follow.

(1) *Applied developmental psychology.* Child and adolescent development including cognitive, language, social and personality development in relation to processes of learning, problems and practices of education, child rearing, and social interaction in varied educational settings; the use of developmental theories, methods and findings in practical educational contexts.

(2) *Classroom processes and instruction.* Research on teaching and the organization of teaching, and on processes of teaching and learning as they occur in classrooms and other instructional situations at all levels of education including higher education; applied research on the design of effective instructional environments including computer-assisted learning; application of research methods, models and results in evaluating and improving the capacity of classrooms and other instructional environments to support high levels of educational accomplishment in learners with varied backgrounds of knowledge, ability and experience, including the gifted and learning disabled.

(3) *Applied cognitive psychology.* Research on the cognitive processes and knowledge structures that underlie learning, competence and performance in educationally significant domains and populations of learners; applied research employing the theories, methods and findings of the cognitive sciences to the analysis of cognitive processes underlying performance in instructional tasks including: reading comprehension, written composition and other literacy skills; computation, mathematical problem solving and other mathematical skills; learning and the acquisition of knowledge and skill in other content domains of school learning; individual and group differences in learning and cognitive processes, including differences between novices and experts, and comparative studies of different populations of learners; applications of cognitive analyses of school learning and performance to the improvement of learning and instruction and the diagnosis and remediation of learning difficulties.

(4) *Measurement, evaluation and research design.* The measurement and description of individual and group differences in learning, abilities and achievement; individual differences in intellectual traits, their stability or change, and their relation to learning; research, theories, models and methods for evaluation of learning, teaching and other products or processes of education; statistical models and procedures in measurement, evaluation and research design and their applications in educational research and practice; measurement, evaluation, and research design in natural as well as experimental or test-like situations.

M.A. Educational Psychology

The aim of this M.A. is to produce graduates who (1) are broadly trained in each of the major areas of educational psychology listed above, (2) have sufficient research competence to critically evaluate research in educational psychology, and to design, conduct and report empirical research, and (3) have experience in applying research methods and findings to the sollution of practical problems in varied educational settings.

Additional Entrance Requirements

(1) To be admitted to the program students must hold either (a) an honors or major degree in psychology with a CGPA of 3.0 or better, or (b) a Permanent Québec Teaching Diploma or the equivalent, a bachelor's

degree with a standing equal to or better than a CGPA of 3.0, and substantial undergraduate background in psychology. Candidates in category (a) above may not register as part-time students. A potential applicant who meets the requirements of a Permanent Québec Teaching Diploma or the equivalent and good undergraduate degree, but without substantial background in psychology, should seek an interview to determine how best to acquire the required background.

(2) Statements of academic and research experience, future career plans, and (where appropriate) professional teacher training and teaching experience.

(3) One half course in statistics should form part of the undergraduate program of the prospective candidate. Arrangements can be made for students to complete this requirement after admission to the M.A. by taking 416-575 or an approved substitute, but this course would be in addition to the other requirements of the degree.

Degree Requirements

Candidates are required to follow an approved course of study, to select a topic for research, and to present the results of such research in the form of an acceptable thesis.

Required courses ensure that each graduate of the program will emerge with a substantive knowledge of the major areas of educational psychology. Optional courses provide an opportunity for qualified candidates to study advanced topics related to their research and to diversify their knowledge of educational psychology. It is intended to provide students with opportunities for involvement in research during each year of registration. A regular non credit seminar on current research topics in educational psychology is offered to facilitate involvement with research and the development of research skills.

For the benefit of students who are permitted to follow a course of part-time study, the department undertakes to provide, during the winter session, one full course which commences in the late afternoon. In summer session, one full course will be provided.

Required Courses (8 half courses))

416-605 RESEARCH METHODS I.

416-606 RESEARCH METHODS II.

416-615 THEORIES OF CHILD DEVELOPMENT IN EDUCATION.

416-635 CLASSROOM PROCESSES AND INSTRUCTIONAL PSYCHOLOGY

416-640 COMPUTERS IN EDUCATIONAL PSYCHOLOGY.

416-655 COGNITIVE SCIENCES AND EDUCATION.

416-675 INTERMEDIATE STATISTICS I.

416-676 INTERMEDIATE STATISTICS II.

Limited Options (2 half courses)

One course from group A and one from group B.

A 416-670 Studies in Educational Psychology: Evaluation
416-685 Studies in Educational Psychology: Measurement of Individual Differences in Learning and Ability

B 416-616 Applied Developmental Psychology or 416-617 Adolescent Development, but not both.
416-636 Classroom Processes and Social Psychology
416-656 Applications of Cognitive Science in Education

Options (2)

One full course or two half courses which may be selected from courses not previously chosen, from other offerings in the department or elsewhere where eligible, with approval of the supervisor and instructor.

Further to the above choices, optional courses are available either in addition to those required or, for students with evidence of equivalent preparation, to replace one of the required courses. Also, 416-641 and 416-671 may replace 416-640 and 416-670 respectively, it being noted that fewer options would thereby remain. All choices of options require approval of the thesis supervisor in consultation with the program director.

M.Ed. Educational Psychology

The aim of the M.Ed. is to offer teachers advanced professional training in the areas of the practical contribution of educational psychology to teaching: (1) the application of the results of educational research, (2) evaluation of student learning, teaching, programs, and educational experimentation and innovation, and (3) a greater understanding of human development, individual differences, and the learning process. Courses will be offered at times which will encourage part-time study. The program is directed toward the innovating teacher at any level.

Additional Entrance Requirements

(1) Statements of academic experience, professional teacher training, teaching experience, and future career plans.

(2) Letters of reference from at least two professional colleagues, from at least two former university instructors, and any others the applicant wishes should be submitted.

(3) A half-course introduction to statistics should form part of the undergraduate program of the applicant; 416-575 or an approv-

ed substitute may be taken after admission, but this half course does not replace any other course in the program and should be taken first.

Students may begin the program in any year, but groups of required courses are normally offered in alternating years. The program director should be consulted about the specific sequence to be followed.

Degree Requirements

The program contains three main parts: three required courses, three optional courses selected in part from a topical list, and two required courses constituting a Special Activity, the student's major project, intended to demonstrate by performance that the student has succeeded in the program. The Special Activity may be one large project or two smaller ones corresponding to each course.

Required courses

416-602 USES OF RESEARCH FINDINGS IN EDUCATION (full course).

416-635 CLASSROOM PROCESSES AND INSTRUCTIONAL PSYCHOLOGY (half course).

416-636 CLASSROOM PROCESSES AND SOCIAL PSYCHOLOGY (half course).

416-671 EDUCATIONAL EVALUATION: THEORY AND PRACTICE (full course).

Optional Courses

A total equivalent to three full courses, including a minimum of one half course in each of the following three related topics. Beyond these minima, courses may be taken in these same topics or selected from other programs, with the approval of the program director. No more than the equivalent of two full courses may be taken from first-level offerings. Qualified students are encouraged to begin with second-level courses.

HUMAN DEVELOPMENT

First level:

414-667	PROBLEMS IN EMOTIONAL DEVELOPMENT OF CHILDREN AND ADOLESCENTS
414-668	PERSONALITY THEORY IN RELATION TO THE SPECIAL CHILD
414-669	COGNITIVE DEVELOPMENT IN RELATION TO THE SPECIAL CHILD

Second level:

416-615	THEORIES OF CHILD DEVELOPMENT IN EDUCATION
416-616	APPLIED DEVELOPMENTAL PSYCHOLOGY AND EDUCATION
416-617	ADOLESCENT DEVELOPMENT

Third level:

412-620	ADVANCED CHILD PSYCHOLOGY
416-628	SEMINAR IN APPLIED DEVELOPMENTAL PSYCHOLOGY

ADAPTIVE EDUCATION

First level

411-640	CURRICULUM THEORY
414-654	PRACTICUM: INDIVIDUALIZED CURRICULA AND SPECIAL TEACHING METHODOLOGY
433-645	ELEMENTARY SCHOOL CURRICULUM
449-582	EDUCATIONAL THEORY AND INSTRUCTIONAL STRATEGIES

Second level:

411-642	DEVELOPMENT AND IMPLEMENTATION OF THE SCHOOL CURRICULUM
416-633	ADAPTING EDUCATIONAL PROCEDURES TO INDIVIDUAL DIFFERENCES
416-655	COGNITIVE SCIENCES AND EDUCATION
416-656	COGNITIVE PROCESSES UNDERLYING SCHOOL LEARNING
433-647	INDIVIDUALIZING THE CURRICULUM

Third level:

416-668	SEMINAR IN APPLIED COGNITIVE PSYCHOLOGY

INSTRUCTIONAL DESIGN

First level:

416-535	PSYCHOLOGY AND INSTRUCTIONAL DESIGN
449-588	INSTRUCTIONAL DESIGN IN HIGHER EDUCATION

Second level:

416-545	PRACTICUM IN INSTRUCTIONAL DESIGN
416-641	THE COMPUTER IN EDUCATION
416-645	RESEARCH IN INSTRUCTIONAL DESIGN

Third level:

416-648	SEMINAR IN CLASSROOM PROCESSES AND INSTRUCTION

Not all courses can be offered in every year nor in summer session. The program director should be consulted about availability. Limited substitution will be considered for students for whom a required course may be a repetition.

Special Activity *(2 required courses)*

416-697	SPECIAL ACTIVITY I
416-698	SPECIAL ACTIVITY II

Ph.D. Educational Psychology

NOTE: Students are admissible only on an individual *ad hoc* basis and fall under direct control of the Faculty of Graduate Studies and Research. A proposal for a formal program has been approved by the University and is under review at the provincial level. Potential applicants should write for further information to the Program Director, Department of Educational Psychology and Counselling, Faculty of Education, 3700 McTavish St., Montreal, Québec H3A 1Y2.

SPECIALIZED CENTRES

Through cross-appointments and other arrangements, the Department maintains working relationships with several specialized Centres offering unique services and opportunities for training and research to a limited number of students. This includes the McGill-Montreal Children's Hospital Learning Centre which assists children with learning problems, their families and teachers, the Centre for Teaching and Learning Services which is concerned with educational improvement and evaluation in higher education, and the Centre for Medical Education, whose activities focus on training in the Health Sciences. There are opportunities for clinical, tutorial, service, and research experiences either for credit or on a voluntary basis. Students considering participation in the activities of any such Centre should contact their respective Program Directors about eligibility, contact with the Centre, and registration procedures.

COURSES IN COUNSELLING, SPECIAL EDUCATION, AND EDUCATIONAL PSYCHOLOGY

Courses are listed in numerical order. For specific program applicability consult the program profiles above. Responsibility for these courses is as follows, according to the 3-digit prefix:

412 – Counselling
414 – Special Education
416 – Educational Psychology
449 – College Level Programs

- **412-602 PHILOSOPHY OF GUIDANCE.** (half course). Philosophical foundations of guidance, history, growth, and recent trends of the guidance movement. Orientation to the field in respect to the functions, scope, organization, and administration of counselling services.

- **412-603 THEORIES OF PERSONALITY.** (half course). Study and comparison of contemporary theories of personality Emphasis upon theories having significance for counselling and assessment principles. Recent research in personality theory.

- **412-605 INTRODUCTION TO THEORIES IN COUNSELLING** (half course). Correlation and interpretation of counselling data and the study of individual cases. Emphasis on the process in counselling relationship, and counselling techniques.

412-606 INTRODUCTION TO COUNSELLING THEORY (half course). An introduction to counselling theories especially as they are related to theories of personality, human development and learning.

412-607 THEORIES OF COUNSELLING (half course). A detailed study of phenomenological, developmental and behavioral theories of counselling, among others. Vocational counselling examined within the framework of these theories.

412-608 GROUP COUNSELLING: THEORY (half course). Examines the theory and process of group counselling, with an emphasis on skills and techniques. Particular attention will be given to the procedural aspects of organizing a group, the theory underlying certain approaches, the process, and evaluation of outcomes.

412-609 PRINCIPLES OF INDIVIDUAL AND GROUP TESTS (half course). Theoretical aspects of individual and group testing and tests. Intelligence, aptitude, personality, and interest tests will be analyzed in terms of test construction, reliability, validity, and practicality for counsellors.

412-611 INDIVIDUAL TESTING. (half course). This course is intended to make students familiar with the individual tests in common use and to give them some degree of proficiency in their application. Special emphasis will be placed on the Wechsler scales. There will be opportunities for diagnostic testing under supervision. (available only to M.Ed. students in the old program).

412-615 MODELS OF CONSULTATION IN COUNSELLING. (half course). Current psychological models underlying consultative/collaborative interactions with parents, teachers, and allied professionals. Theories and techniques for assessing maladaptive behaviour and effecting behaviour change of individuals in family, educational, and other institutional settings are presented.

412-616 INDIVIDUAL READING. (half course). Candidates may, with the consent of the Department, elect this individual reading and conference courses in lieu of one of the above courses.

412-617 PRACTICUM IN INDIVIDUAL AND GROUP TESTING. (half course). Practice in the administration of individual and group tests in various settings. Test report writing, evaluative skills, and test interpretation. Attention given to individual and group tests of intelligence, aptitude, achievement, interests, and personality.

412-620 ADVANCED CHILD PSYCHOLOGY. (half course). Study of the growing person from birth to pre-adolescence with emphasis on the background and methods as well as research on the principles of child development, disturbances in child development, various areas of development, and characteristics of different age levels.

- **412-622 TRENDS IN ELEMENTARY SCHOOL COUNSELLING.** (half course). Social, psychological, educational factors in vocational development of elementary school children. Implications of the elementary curriculum for career planning and decision making. Functions, relationships, organization, and administration of guidance in elementary education.

- **412-623 INTRODUCTION: THE EXCEPTIONAL CHILD.** (half course). Nature, identification, use, and treatment of children's disabilities and their influence on emotional, social, educational, and vocational adjustment. Special services required for exceptional children to develop to their maximum capacities.

412-624 GROUP COUNSELLING: PRACTICE. (half course). The practical dimension of planning and designing a group. Setting up and conducting a group in a professional setting over a period of sessions and evaluating a group in terms of models studies in 412-608.

412-635 COUNSELLING FOR SEXUAL ADJUSTMENT. (half course). The counsellor's understanding of his own sexuality and an examination of models for counselling others for sexual adjustment. How and when to make appropriate referrals.

412-636 THEORIES OF SEX THERAPY. (half course). An examination of various theorietical approaches to the treatment of sexual dysfunction, with special emphasis on psychodynamic and behavioural models.

412-641 PSYCHOLOGICAL TESTING. (half course). Theory and application of group tests appropriate for adolescents and adults. Specific instruments; intelligence, aptitude, interest and personality, analyzed in terms of basic concepts, reliability, validity, and practical utilization. (Available only to M.Ed. Students in old program.)

412-660 SELECTED TOPICS IN COUNSELLING. Advanced studies in selected topics in the field of counselling. Areas such as pre-retirement counselling, crisis intervention, drug abuse counselling, and the training of paraprofessionals will be explored in depth.

- **412-662 INFORMATION SERVICES.** (half course). Procedures and systems of utilizing and communicating social, educational, and occupational information and materials. Structure of occupations, theories of vocational development.

412-665 PRACTICUM IN COUNSELLING, I. (half course). Practice in counselling interactions in preparation for internship. Developing expertise and confidence in a full range of skills to help clients make and implement self-directed choices. Emphasis on counsellor as an educational and therapeutic agent.

412-666 PRACTICUM IN COUNSELLING, II. (half course). Continuation of Practicum, I. Practice in counselling interactions in preparation for internship. Emphasis or vocational, educational, and personal counselling using various intervention modes.

412-670 CURRENT TRENDS IN COUNSELLING. Advanced studies in current trends in the counselling profession. Recent developments in areas such as behavioural counselling, interpersonal process recall, and consultation models will be treated. The content of the course will change periodically to reflect developing trends.

412-679 INTERNSHIP, GENERAL I. (one full year).

412-680 INTERNSHIP, GENERAL II. (one full year).

Study, observation, and practice at respective levels in selected settings; integration of theory and practice. Through Faculty supervision of experience, group seminar, and individual conferences.

412-681 INTERNSHIP IN GROUP COUNSELLING. (one full year).

412-682 INTERNSHIP IN PSYCHOMETRY. (one full year).

412-683 INTERNSHIP IN ORGANIZATION AND DEVELOPMENT OF SERVICE PROGRAMS. (one full year).

412-685 INTERNSHIP IN VOCATIONAL AND REHABILITATION COUNSELLING. (one full year).

Study, observation, and practice of specialized aspects of counselling through Faculty supervision and direction by personnel in the internship setting.

412-709 ADVANCED THEORY: COUNSELLING MODELS AND SYSTEMS AND SMALL GROUP COUNSELLING. (full course). Advanced study of the counselling relationship and process with comparison between contemporary models and systems. Research relative to these models and its implications for counselling practice will be studied. Applicability of these models to small group counselling, including methods and problems of groups in counselling; research studies and analysis of small group interaction.

412-710 THE DISORGANIZED PERSONALITY. (half course). Nature of disorganized behaviour and the adjustment process; adjustment and learning; variety of adjustment reactions; major adjustment mechanisms; the effect of unconscious psychological processes upon behaviour; consideration of the implications for counselling.

412-711 ADVANCED METHODS OF EDUCATIONAL STUDY AND RESEARCH DESIGN. (full course). Statistical methods as applied to educational data and problems are systematically studied, including topics such as: correlation and regression, analysis of variance, and other tests of significance including selected non-parametric techniques. Training is given in identifying research problems and organizing useful means for research, and interpreting and reporting observed phenomena.

412-717 SEMINAR: INDIVIDUAL ANALYSIS AND PROGRAMS FOR EXCEPTIONALITY. (full course). Advanced study of diagnostic instruments, with emphasis upon the analysis, interpretation and integration of all pertinent data; use of projectives, especially in play activities; implications for learning and adjustment problems of the elementary child. Identification and needs of exceptionality; special emphasis on programs that have been developed for the education of the exceptional child.

412-787 SEMINAR: RESEARCH PROBLEMS IN ELEMENTARY SCHOOL COUNSELLING. (full course). The seminar will consist of supervised study of selected topics for the particular option selected. These will be reported on in the seminar and research and professional problems in counselling common to all levels will be covered with emphasis on recent literature.

412-797 SUPERVISED FIELD WORK IN ELEMENTARY COUNSELLING. (one full year). Study, observation, and practice at respective levels in selected settings; integration of theory and practice through supervision of experience, group seminar and individual conferences.

412-720 SEMINAR: CAREER DEVELOPMENT THEORY, PHILOSOPHY AND ORGANIZATION OF EDUCATIONAL PERSONNEL SERVICES. (full course). Contributions of contemporary career theories to the understanding of the processes and the determinants of career choice and adjustment life stages and career patterns in personal and vocational development, study of selected problems, designs and outcomes of research in career development.

Analysis of the inter-related functions of all types of specialized student personnel workers with particular reference to their role inthe educational program.

412-789 SEMINAR: RESEARCH PROBLEMS IN SECONDARY SCHOOL COUNSELLING. See course description for 412-787 in the Elementary School Counselling Major.

412-796 SUPERVISED FIELD WORK IN SECONDARY SCHOOL COUNSELLING. (one full year). See course description for 412-797 in the Elementary School Counselling Major.

412-788 SEMINAR: RESEARCH PROBLEMS IN STUDENT PERSONNEL SERVICES. See course description for 412-787 in the Elementary School Counselling Major.

412-798 SUPERVISED FIELD WORK IN STUDENT PERSONNEL SERVICES. (one full year). See course description for 412-797 in the Elementary School Counselling Major.

412-770 INDIVIDUAL READING. (full course). Candidates may, with the consent of the Program Director, elect this individual reading and conference course in lieu of one of the above courses.

414-603 READING COURSE. (full course).

414-616A,B READING COURSE. (half course).

414-642/414-643B EDUCATION OF EXCEPTIONAL CHILDREN. (half course). Two related and sequential half courses introduction to programs and problems of educating handicapped or gifted children.

414-645 DIAGNOSIS AND ASSESSMENT OF LEARNING PROBLEMS. (half course). Principles and procedures in the education of pupil growth and achievement and in the diagnosis of the causes of poor achievement Emphasis will be given to instruments used by class teacher Reference will be made to the use by the teacher of tests given outside the classroom by guidance counsellors or psychologists.

414-646 PRACTICUM: DIAGNOSIS AND ASSESSMENT OF LEARNING PROBLEMS. (half course). Practice in the administration and interpretation of individual and group tests; use of other-than-teacher test results; collection and use of other pertinent data.

414-654 PRACTICUM: INDIVIDUALIZED CURRICULA AND SPECIAL TEACHING METHODOLOGY. (half course). An opportunity will be given to develop individual teaching programs for selected exceptional children. Practice will be given in the use of specialized teaching techniques.

414-656 CLINIC: REMEDICATION OF SELECTED LEARNING DIFFICULTIES. (full course). Participation as a special education teacher in an interdisciplinary team: planning and carrying out of remedial programs for individual pupils; working with parents of children with learning difficulties.

414-661 INTERNSHIP I. (half course). Analysis and practice in teaching skills or an equivalent supervised experience.

414-662 INTERNSHIP II. (half curse). The student will be supervised while practising as a special educator.

414-663 INTERNSHIP III. (half course). A workshop seminar dealing with models of teaching and curriculum content in specific subject areas.

414-664 INTERNSHIP IV. (half course). A supervised practicum with the student functioning in a

leadership role or as a consultant in a (summer) learning centre or equivalent setting.

414-665 SEMINAR I: REMEDIATION OF SELECTED LEARNING DIFFICULTIES. (half course). This course will involve directed and independent reading as well as opportunities for group discussion. It is designed to assist the student in developing solutions to practical problems related to either the Field Experience or the Internship.

414-666 SEMINAR II: REMEDIATION OF SELECTED LEARNING DIFFICULTIES. (half course). It is expected that this course will be taken concurrently with 414-662 or 414-664. Directed and independent study as well as group discussion are involved.

414-667 PROBLEMS IN EMOTIONAL DEVELOPMENT OF CHILDREN AND ADOLESCENTS. (half course). Behavior problems will be examined from a psychodynamic perspective with application to the classroom and teacher-child relationships.

414-668 PERSONALITY THEORY IN RELATION TO THE SPECIAL CHILD. (half course). This course will examine normal personality development from several theoretical viewpoints. Exceptional development will also be examined with emphasis on the learning problems which can arise out of this.

414-669 COGNITIVE DEVELOPMENT IN RELATION TO THE SPECIAL CHILD. (half course). This course will deal with the cognitive development of children and adolescents and with the implications for exceptional children. Attention will be given to language and perceptual motor development.

416-098 TEACHING AND LEARNING IN HIGHER EDUCATION. (noncredit). (Corequisite: hold, have held, or expect to hold a teaching assistantship or equivalent responsibility). Characteristics of effective instruction, instructional design, test construction, grading, course evaluation, and student skills. Students are advised on topic selection in relation to their instructional responsibilities. Offered through the Centre for Teaching and Learning Services (telephone 392-8320) and available to graduate students in any department. (Formerly 414-098.)

416-099 SUPERVISED TEACHING ASSISTANTSHIP IN EDUCATIONAL PSYCHOLOGY AND COUNSELLING. (noncredit). Individual guidance and evaluation in preparation for teaching in higher education. (Formerly 414-099.)

416-535 PSYCHOLOGY AND INSTRUCTIONAL DESIGN. (half course). (Corequisite: Courses in learning, development, and evaluation or measurement). This course draws on the fields of learning theory developmental psychology, and measurement to focus on the tasks of constructing instructional materials. Areas to be considered include behavior analysis, concept formation, and test construction. (Formerly 414-592.)

416-545 PRACTICUM IN INSTRUCTIONAL DESIGN. (half course). (Prerequisite: 416-535). This course is devoted to extensive work on developing an instructional system. Each student selects a subject area and develops and validates an instructional unit. Students may wish to use this occasion to investigate in depth a particular aspect or feature of instructional design.

416-546 COMPUTER APPLICATION MODEL. (half course). (Prerequisite: 414-310 or permission of the instructor). A non-mathematical course introducing students to the operation and potential of a mini-computer. Educational computer projects prepared by students will be discussed and analyzed with a view to understanding the role of a computer in the development of cognition. (Formerly 414-311.)

416-575 EDUCATIONAL MEASUREMENT. (half course). Statistical measurements in education, graphs, charts, frequency distributions, central tendencies, dispersion, correlation, and sampling errors. (Formerly 414-610.)

416-602 USES OF RESEARCH FINDINGS IN EDUCATION. (full course). The critical study of selected research publications with a view to their application to educational practice. Topics of study will be adapted to individual needs. Not available to M.A. students in Educational Psychology. (Formerly 414-613.) Given in alternate years.

416-605 RESEARCH METHODS I. (half course). (Prerequisite: 416-675. Corequisite: 416-676.) Research methods and designs useful in educational and psychological studies, their strengths and weaknesses, the importance of the statement of research problems, their identification, writing and evaluating research proposals, and ethical requirements in the conduct of research.

416-606 RESEARCH METHODS II. (half course). (Prerequisite: 416-605.) The relations between research and statistical designs, interdisciplinary approaches, the evaluation of research designs and research, meta-analyses, non quantitative methods, the implications and uses of large and small computers in educational research in roles beyond statistical computations, and the writing of scholarly reports.

416-609 SELECTED TOPICS IN EDUCATIONAL PSYCHOLOGY (full course). A detailed examination of recent developments in specific topics of educational psychology. The content of the seminar will vary from year to year and will be announced prior to registration. (Formerly 414-670.)

416-615 THEORIES OF CHILD DEVELOPMENT IN EDUCATION. (half course). Analysis and critique of the major theories of child development and their educational implications. Selected research and educational applications will be examined.

416-616 APPLIED DEVELOPMENTAL PSYCHOLOGY AND EDUCATION. (half course). (Prerequisite: 416-615.) Analysis and exploration of several topics in applied developmental psychology including research on infant stimulation, cognition, language, personality and social development, and educational applications.

• **416-617 ADOLESCENT DEVELOPMENT.** (half course). Normal development of adolescents through young adulthood. Problems and concerns of adolescence which occur with physical, social and personal development, in the context of family and school adjustment. (Formerly 412-640.)

416-628 SEMINAR IN APPLIED DEVELOPMENTAL PSYCHOLOGY. (half course). (Prerequisite: 416-615 or permission of the instructor). Examination of research, professional and theoretical topics extending beyond the prerequisite course, as applied to education. (Formerly 414-671.)

• **416-633 ADAPTING EDUCATIONAL PROCEDURES TO INDIVIDUAL DIFFERENCES.** (full course). Consideration is given to differences among students and teachers on a wide variety of psychological qualities, and to attempt to provide optimal learning situations in the light of these differences. Other topics include the psychological bases for the individualization of instruction, remedial learning, and programs for exceptionally talented students. (Formerly 414-I622.) Given in alternate years.

416-635 CLASSROOM PROCESSES AND INSTRUCTIONAL PSYCHOLOGY. (half course). Instructional and environmental effects on learning and their implications for educational practice, with particular emphasis on such topics as theories of instruction in relation to theories of learning, differences in learning attributed to teaching and learning styles, teaching methods, setting, and subject matters, and experimental and ethnographic approaches to their study.

416-636 CLASSROOM PROCESSES AND SOCIAL PSYCHOLOGY. (half course). (Prerequisite: 414-635.) Instructional or environmental effects on learning and their implications for educational practice, with particular emphasis on such topics as the social psychology of learning, family background and effects, classroom interaction, teacher impact, and ethnographic and survey approaches to their study.

416-638 EDUCATIONAL PSYCHOLOGY AND THE TEACHING OF ART. (full course). Explore the relations of various aspects of educational psychology to the teaching of art; study processes in individuals which contribute to the practice and appreciation of artistic expression. (Formerly 414-620.)

• **416-640 COMPUTERS IN EDUCATION.** (half course). Recent research findings on applications of the computer to educational and psychological issues. Hands-on experience with educational computer languages. Future directions. Given in alternate years.

416-641 THE COMPUTER IN EDUCATION. (full course). (Prerequisite: 416-670 or 416-671.) Computer assisted, aided, and managed instruction. Direct experience with remote-access terminals, and the writing, preparation in computerized form, and developmental testing of instructional sequences. Parts of this course are presented in computerized mode. (Formerly 414-619.) Given in alternate years.

416-645 RESEARCH IN INSTRUCTIONAL DESIGN. (half course). Prerequisites: 416-535 and 416-670 or 416-671.) Review of recent research in instructional design. Each student selects a particular topic to examine in depth, producing a review or research paper.

416-646 SELECTED TOPICS IN THE SOCIAL PSYCHOLOGY OF EDUCATION. (half course). (Recommended corequisite: 416-636.) Topics vary from year to year but generally deal with the patterns of human interaction in classrooms and schools and their relations to such issues as the social and academic performance of students, reciprocal effects among peer relationships, achievement and motivation, and the stereotyping of behavior and perceptions.

• **416-648 SEMINAR IN CLASSROOM PROCESSES AND INSTRUCTION.** (half course). (Prerequisite: 416-635 or permission of the instructor). Examination of research, professional and theoretical topics extending beyond the prerequisite course. (Formerly 414-672.)

416-655 COGNITIVE SCIENCE AND EDUCATION. (half course). (Corequisite: 416-675.) Current theory and research on information processing and its significance to education. This includes the processes humans use to recognize, perceive, acquire, retain, comprehend, produce and transform meaningful information.

416-656 APPLICATIONS OF COGNITIVE SCIENCE IN EDUCATION (half course). (Prerequisite: 416-655 or permission of instructor; corequisite: 416-676.) Implications of theories and methods of cognitive science as they apply to the analysis of performance and learning in educationally relevant tasks. This includes reading, comprehension, writing, mathematics, language learning, and problem-solving.

416-668 SEMINAR IN APPLIED COGNITIVE PSYCHOLOGY (half course). (Prerequisite: 416-655 or permission of the instructor). Examination of research, professional and theoretical topics extending beyond the prerequisite course, as applied to education. (Formerly 416-673.)

• **416-670 STUDIES IN EDUCATIONAL PSYCHOLOGY: EVALUATION** (half course). (Corequisite: 416-676 or equivalent). Theories and methods of evaluation of learning, instruction, teaching and other

products or processes of education. Current models of evaluation and situations in which they are appropriate, evaluation methodologies, relationships between research and evaluation, and research on evaluation of learning, instruction, teaching and other educational processes. (Formerly 414-626.) Given in alternate years.

416-671 EDUCATIONAL EVALUATION: THEORY AND PRACTICE (full course). Educational evaluation theory, design, and application. The course concentrates on the methods and practice of evaluation (1) of learning, including the design of classroom tests, (2) for instructional improvement, and (3) for administrative decision-making. The evaluation process is studied in depth. Case studies and a supervised evaluation project provide opportunities for application. (Formerly 414-617.) Given in alternate years.

416-675 INTERMEDIATE STATISTICS I (half course). (Prerequisite: 416-575.) Central tendency, variation, coorelation, simple regression, chi-square, estimation, hypothesis testing, selected inferential techniques (parametric and non-parametric). Computer data processing using existing packages.

416-676 INTERMEDIATE STATISTICS II (half course). (Prerequisite: 416-675.) Analysis of variance and covariance, fixed, random and mixed effects, crossed and nested designs; regression models. Computer data processing using existing packages.

416-682 GENERAL MODEL FOR UNIVARIATE ANALYSIS. (half course). The presentation of the linear model as a general data analytic system that subsumes analysis of variance, regression, analysis of covariance, and ordinary least-squares estimation and hypothesis-testing procedures. Primarily applications oriented towards education and educational psychology. The objective of the course is to describe the single-criterion forms of the model and to provide the tools required for data analysis under that form. (Formerly 414-612).

• **416-684 METHODS OF MULTIVARIATE ANALYSIS.** (full course). (Prerequisite: 416-676.) An intensive study of multivariate extensions of analysis of variance, analysis of covariance, and regression analysis. Primarily applications oriented toward education and educational psychology. The main purpose of the course is to describe the multiple-criterion form of the general linear model and to provide the tools required for data analysis under that form. (Formerly 414-624.)

416-685 STUDIES IN EDUCATIONAL PSYCHOLOGY: MEASUREMENT OF INDIVIDUAL DIFFERENCES IN LEARNING AND ABILITY. (half course). (Co-requisite: 416-676 or equivalent). Theoretical and methodological approaches to the measurement and description of individual and group differences in cognitive abilities, learning, and other intellectual traits or processes. Measurement of abilities and learning, assessment of growth and development, group differences in intellectual processes, statistical theories of mental tests; and factor analysis. (Formerly 414-625.)

• **416-688 SEMINAR IN MEASUREMENT, EVALUATION AND RESEARCH DESIGN.** (half course). (Prerequisite: Any of 416-671, 416-676, 416-682, 416-684, according to the topic in a particular semester; permission of the instructor). Examination of research, professional, and theoretical topics extending beyond the preprequisite course. (Formerly 414-674.)

416-691 READING COURSE (half course). (Formerly 414-616.)

416-692 READING COURSE (full course). (Formerly 414-603.)

416-697 SPECIAL ACTIVITY I (full course) and **416-698 SPECIAL ACTIVITY II** (full course). A project relevant to improving educational practice. It may be an internship, a research project, or an innovation in teaching, supervised by the student's adviser and with the approval of the department. It is completed by the submission of a project report, monograph, or production. For M.Ed. students only. (Formerly 414-679 and 414-680.)

416-699 THESIS. For M.A. students only.

449-582 EDUCATIONAL THEORY AND INSTRUCTIONAL STRATEGIES. (half course). Instructional strategies appropriate to post-secondary teaching, their strengths and weaknesses, and their relevance to basic theory and research. (From the Diploma in College Teaching.)

449-588 INSTRUCTIONAL DESIGN IN HIGHER EDUCATION. (half course). Exploration of theories, methods and procedures underlying instructional development and design with particular attention to acquiring an understanding of selected instructional systems (e.g. audiotutorial instruction, modular instruction, individual prescribed instruction (Keller Plan), instructional television, computer-assisted instruction, etc.) Synthesis of acquired theories and instructional design components in the design of a learning system relevant to individual teaching situations. (From the Diploma in College Teaching).

1982-83
FACULTY OF GRADUATE STUDIES AND RESEARCH

McGill University
Montreal

Section "H"
Library Science

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All courses listed in this announcement are expected to be offered in 1982-83 unless a • appears left of the course number.

The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

Legal Deposit II 82

CALENDAR FOR SESSION 1982-83

	1982
September 8, Wednesday	Enrolment of first year students
September 8, Wednesday to September 14, Tuesday (incl.)	Orientation Program for first year students
September 13, Monday	Lectures begin for second year students
September 15, Wednesday	Lectures begin for first year students
October 11, Monday	Thanksgiving holiday
December 13, Monday to December 17, Friday	Examinations
December 17, Friday	Fall term ends
	1983
January 10, Monday	Winter term lectures begin
February 4, Fri. and February 5, Sat.	Mid-term holiday
February 24, Thurs. and February 25, Fri.	Study Break
April 1, Friday to April 4, Monday (incl.)	Easter Vacation
April 18, Monday to April 22, Friday	Examinations
April 22, Friday	Winter term ends
T.B.A.	Convocation

1 STAFF

1.1 ADMINISTRATIVE OFFICERS

UNIVERSITY

DAVID L. JOHNSTON, A.B.(Harv.), LL.B. (Cantab. & Queen's), LL.D. (L.S.U.C.)
Principal and Vice-Chancellor

S.O. FREEDMAN, B.Sc., M.D., C.M.(McG). F.R.C.P. (C), F.A.C.P., F.R.S.C.
Vice-Principal (Academic)

JOHN ARMOUR, AACA **Vice-Principal (Administration and Finance)**

E.J. STANSBURY, M.A., Ph.D.(Tor.)
Vice-Principal (Planning and Academic Services)

G.A. MACLACHLAN, B.Sc., M.A.(Sask.), Ph.D. (Man.) **Vice-Principal (Research)**

L.E. LLOYD, B.Sc(Agr.), M.Sc., Ph.D.(McG).
Vice-Principal (Macdonald Campus)

COLIN M. McDOUGALL, D.S.O., B.A.(McG.)
Secretary-General

MICHAEL HERSCHORN, M.A., Ph.D(McG.).
Dean of Students

JEAN-PAUL SCHULLER, B.A.(Ott.) **Registrar**

PEGGY SHEPPARD, B.Ed.(McG.), B.A.(Sir G. Wms.) **Director Admissions Office**

ALTA ABRAMOWITZ, B.A. M.Ed.(McG.)
Information & Liaison Office, Director

MARIANNE SCOTT, B.A., B.L.S.(McG.).
Director University Libraries

GRADUATE SCHOOL OF LIBRARY SCIENCE

HANS MÖLLER, Ph.D.(Copenhagen) **Director, Graduate School of Library Science**

STEPHANIE BOTH, B.A.(Sir G. Wms.), B.L.S.(Tor.), M.L.S.(McG.)
Library Science Librarian

SONIA PROUDIAN **Administrative Assistant**

1.2 LIBRARY SCHOOL STAFF

CAMILLE CÔTÉ, B.A.(Montr.), M.L.S.(Catholic), B.P.d(Montr.) **Associate Professor**

VIOLET L. COUGHLIN, B.Sc.,B.L.S.(McG.), M.S., D.L.S.(Col.) **Emeritus Professor**

HELEN HOWARD, B.A. (Queen's), B.L.S.,M.L.S. (McG.). Ph.D. (Rutgers) **Associate Professor**

CHARLIE D. HURT III, B.A. (Virginia), M.S.L.S. (Kentucky), Ph.D. (Wis.) **Assistant Professor**

JOHN E. LEIDE, B.S. (MIT), M.S. (Wis.), Ph.D. (Rutgers) **Assistant Professor**

PETER F. McNALLY, B.A.(W. Ont.), B.L.S., M.L.S., M.A.(McG.) **Associate Professor**

DIANE MITTERMEYER, B.A., B.L.S. (Montr.), M.L.S. (Tor.) **Assistant Professor**

HANS MÖLLER, Ph.D. (Copenhagen)
Director and Associate Professor

MIRIAM TEES, B.A., B.L.S., M.L.S.(McG.)
Associate Professor

EFFIE C. ASTBURY, B.A., B.L.S.(McG.), M.L.S.(Tor.). **Emeritus Professor**

1.3 SESSIONAL LECTURERS

JOY BENNETT, B.A., M.A. (Sir G. Wms.), M.L.S. (McG.). **Interlibrary Loans Librarian, Concordia University**

ELEANOR BLUM, B.A. (Miss. State College), B.S. Library Service (Col.), Ph.D. (Ill.)
(Summer 1982)

MARCEL CAYA, B.A.(Montr.), L.L.(Sher.), M.A. (Car.), Ph.D.(York)**University Archivist, McGill**

WILLIAM M. CURRAN, B.A. (Loyola), M.Ed. (Ottawa), M.L.S.(McG) **Librarian, The Royal Bank of Canada**

FRANCES GROEN, B.A., B.L.S.(Tor.), M.A.(Pitts.) **Life Sciences Area Librarian, McGill**

ELIZABETH LEWIS, B.A., B.L.S.(McG.)
Rare Books and Special Collections Librarian, McGill

BRIAN M. OWENS, B.A. (Alta.), M.L. (Wash.)
Archivist, McGill

JOHN PARKHILL, B.A., M.A. (Queen's), B.L.S. (McG), A.M. (Harv.) (Summer 1982)

MICHAEL L. RENSHAWE, B.A., M.L.S., J.D. (Maryland) **Law Area Librarian, McGill**

MARIA VARVARIKOS, B.A., M.L.S.(McG.) Children's Librarian **Westmount Public Library**

MICHAEL G. WERLEMAN, B.Arch.(McG.), M.R.A.I.C. **Architect, Sankey Associates**

2 GRADUATE SCHOOL OF LIBRARY SCIENCE

2.1 GOALS AND OBJECTIVES

In the broadest statement of its goals, the School exists to better social, cultural, and economic conditions by facilitating and expediting acess to information required by people at all ages and levels. The major activity of the Faculty is the provision of graduate-level education for information professionals who will staff present and evolving forms of libraries and related institutions. As individuals, members of the Faculty contribute to the development of their profession by presenting the results of their scholarly inquiries, and by leadership activities in appropriate associations. To the University and to the communities which it serves, they also provide insight as to how an information-conscious society can maximize its information-handing capability.

The specific immediate educational objectives are:

1. To provide students with an understanding of the basic principles and practices of library and information science sufficient for entry into professional positions ordinarily filled by new graduates of ALA-accredited library schools.
2. To provide students with the instructional resources necessary to their development of professional specialties in a reasonable number of areas, and to a reasonable level of expertise.
3. To introduce students to the basic concepts and practices of technological innovation, particularly the use of computerized processing systems.
4. To develop amongst students not only basic managerial skills, but also an awareness of the contributions of professional management students to library and information science.
5. To prepare McGill graduates to participate fully in the cultural milieu of Québec, and to be able to interpret it outside of Québec.
6. To prepare students to be flexible and innovative in their approach to careers in librarianship.
7. To provide continuing education opportunities in those areas of library or library-related studies in which suitable expertise either exists or can be arranged, in educational formats appropriate to the course materials and to the prospective students.

2.2 HISTORY OF THE SCHOOL

McGill University was the first institution in Canada to provide library training and the first to grant a degree in library science. Short summer programs were given from 1904-1927, the first regular sessional program being given in 1927-28. The program of the School was accredited by the Board of Education for Librarianship of the American Library Association, and the B.L.S. (5th year) degree was first conferred in May 1931. In the session of 1956-57, a 6th year Master of Library Science degree was first offered. After 1964-65 the 5th year degree was discontinued and the M.L.S. degree awarded after two years of full-time graduate study. The school is presently accredited by the Committee on Accreditation of the American Library Association.

2.3 RELATIONSHIP TO THE PROFESSION

The School is an institutional member of the Canadian Association of Library Schools (CALS) and the Association of American Library Schools (AALS). Individual faculty members belong to many Canadian and international associations and are active in working on committees and projects in many professional areas.

There are very good relationships between the School and the local professional community. The School provides continuing education for librarians in the community, and often acts as host to association meetings and workshops.

The School maintains close liaison with the Corporation des bibliothécaires professionels du Québec/Corporation of Professional Librarians of Québec, which has the sole legal authority to enable a practitioner in Québec to use the title "Professional Librarian".

The Act establishing the Corporation defines a professional in the field of librarianship as one "whose principal functions are: a) to establish, develop and administer libraries or documentation centres with a view to scientifically preserving human knowledge in any form; b) to classify and organize means for preserving human knowledge according to the scientific methods currently taught in universities; c) to render human knowledge accessible to institutions and persons by introducing the necessary methods to make use of the services of libraries and to establish a local library system connected with any regional, provincial, federal or international system."

Graduates of McGill's Library Science program, do indeed perform all of these functions as librarians or information scientists in a variety of library settings: special, university, public, and governmental; they have also been

connected with the development of the larger information systems at all levels mentioned in the Act. To state that the School's program aims to prepare its graduates to play a dynamic role in the operation of the libraries of today, to be flexible and perceptive of the need to adjust to new modes in the future, is also to state that the School itself is dynamic, flexible, and responsive to change.

2.4 RELATIONSHIP TO THE UNIVERSITY

The Graduate School of Library Science is part of the Faculty of Graduate Studies and Research of McGill University; its students are able to participate fully in the varied life of a large university. Further, they are not only allowed but encouraged to elect courses in other units of the University (see 6.3) Similarly, faculty members whose prime areas of responsibility lie outside Library Science, but whose expertise relates to librarianship, participate directly in the instructional program of the school as sessional and special lecturers.

2.5 FACILITIES

The School is located on the street floor of the McLennan Library Building in quarters especially designed for it. Within easy access of each other are the administrative offices, faculty offices, lecture and seminar rooms, laboratories for cataloguing, data processing, and audio-visual materials, and the Library Science Library and the University Archives. Student amenities include a lounge, kitchen facilities, lockers, and typewriters. An Alumni and Special Projects office provides separate work space for student officers, the student newspaper, and the student chapter of the Special Libraries Association.

The facilities of the School, combined with its downtown location close to public transportation, make it an attractive place for evening courses and professional meetings.

2.5.1 Data Processing Facilities

Through the terminals in the School's Cataloguing and Data Processing Laboratories, students have access to MUSIC (McGill University System for Interactive Computing), and to the operating system of the Centre. There is dial-up access to online search services provided by governmental and commercial database vendors in Canada and the U.S. Students also have educational use of UTLAS (University of Toronto Library Automation Systems) which supports bilingual shared cataloguing in many large library systems in North America and OCLC (Online Computer Library Center), a major American bibliographic utility.

2.5.2 Library Facilities

McGill Library System

Library Science students have access to one of the continent's major research resources in the McGill Library System, which consists of five area libraries: Humanities and Social Sciences Area Library, Law Library, Life Sciences Area Library, Physical Sciences & Engineering Area Library, and the Undergraduate Library. Together these libraries house over two million volumes providing a valuable collection for research and study purposes. The Library system is described in detail in the *General Announcement* of the University.

The Library Science Library

The Library Science Library, which is part of the Humanities and Social Sciences Area, performs a primary function of serving the School's students and faculty in curricular and research work and a secondary service function to the McGill community and practising librarians in the Montreal area. As of 1981 the collection consisted of about 32,000 monographs; new books are added constantly. The monograph collection is supplemented by periodicals holdings of approximately 700 volumes relating to the curriculum. In addition to the main body of professional literature and literature in related fields (such as educational theory and methodology, publishing and printing, communication, documentation, audiovisual media, management, automation, etc.) there is a collection of rare children's books and current children's and young adult literature. To supplement regular class instruction, students are encouraged to examine the Library's internal files.

2.5.3 Archives

Located on the same floor of the McLennan Library Building as the School, the McGill University Archives preserves and makes available to researchers of all disciplines more than 2400 m of primary documentation of permanent value generated over the past 180 years. It offers laboratory conditions for students doing independent studies or practical projects for the archives and records management courses. Its Central microfilm unit is responsible for all microfilming projects throughout the University and, as such, can help students become familiar with micrographics and other new technologies relevant to the non-print documentation. The Archives also possesses a working library of materials relating to archival science, micrographics and records.

3 ADMISSIONS AND REGISTRATION

3.1 LENGTH OF STUDY

The M.L.S. degree is awarded after successful completion of the equivalent of two academic years of graduate study. The first year of the program is normally taken full-time; the second year may be completed by part-time study.

3.2 ADMISSION REQUIREMENTS

3.2.1 First Year Class (M.L.S.I)

1) Applicants for admission must have a B.A. or B.Sc. degree from a recognized university. The School will take into account the character of the applicants' undergraduate studies and their suitability for library work. Courses in the natural sciences, social sciences, and humanities are preferred as forming a suitable basis for studies in library science. Courses of a purely vocational or professional nature cannot be counted as fulfilling this requirement, which is intended to ensure an adequate academic preparation. Academic standing of at least B, or second class, or GPA of 2.8 is required.

2) A knowledge of at least one language other than English is expected; French is highly recommended.

3) A knowledge of basic statistics or data processing is highly desirable.

4) Application forms may be obtained from the School and when completed, should be returned to the School. Official transcripts of the applicant's university record must also be supplied. Deadline for receipt of application forms for entrance into the first year of the program is June 1 (April 1 for overseas students). As enrolment is limited, early application is advisable.

5) Previous library experience, while not essential, will be given consideration in assessing an application.

6) Courses in library and/or information science taken before the B.A., or such courses taken in a school not accredited by the American Library Association, cannot be accepted either as fulfilling the entrance requirement or as credit toward the McGill M.L.S.

3.2.2 Second Year Class (M.L.S.II)

A student who has obtained a B.L.S. or an M.L.S. with satisfactory standing from an accredited library school will be considered for admission into the second year. A student who has completed the first year with satisfactory standing at another accredited Canadian library school with a two-year program may be permitted to transfer into second year. The applicant must have academic and other qualifications acceptable for entrance into McGill's M.L.S. program and have taken the core courses required in the first year M.L.S. at McGill. In such cases the full program of the second year, or its equivalent, must be taken at McGill, and should be approved by the Director after consultation with the Faculty adviser. These students may participate in the first three days of the Orientation Program (see 5.1) if they wish.

3.2.3 Overseas Students

Students from outside the North American continent must apply by April 1. For those whose day-to-day language is not English, a minimum score of 550 on the Test of English as a Foreign Language (TOEFL) is required for admission.

Overseas students should plan to arrive well before the beginning of term and must present themselves at the School no later than Tuesday, September 7.

3.2.4 Special Students

Students who possess the B.L.S. or M.L.S. are welcome to register for any elective courses for which they fulfill the necessary prerequisites. At the discretion of the Director, work experience may be substituted for such prerequisites. Enrolment is subject to the condition that regular students have priority in cases of class size restrictions.

3.2.5 Continuing Education

The Continuing Education program is described in Section 7. Courses are open to people holding M.L.S. or B.L.S. degrees, or, in special circumstances, to others with exceptional experience in libraries. Registration is through the Centre for Continuing Education, with the approval of the Director of the School. Credit is not given for these courses.

3.3 WORK EXPERIENCE

All students, and especially those without previous experience of library work, are strongly advised to work in a library during the summer period between the end of the first year session and the second year of the program.

Students who need to work while studying Library Science should consult the Director if they plan to work more than 12 hours per week during the academic year. In no case should they take full-time positions in the second year, even with reduced study programs. Fur-

thermore, the many complexities associated with course scheduling makes it impossible for the School to design schedules that accommodate the time requirements of part-time jobs, particularly those involving day-time hours. Equally difficult to accommodate are the time-tables of commuters; long-distance daily commuting is therefore discouraged.

3.4 REGISTRATION

M.L.S.I students register at the School on Wednesday, September 8; returning students register at the beginning of 2nd year program on Monday, September 13.

4 GENERAL INFORMATION

4.1 BOARD AND RESIDENCE

Information regarding accommodation can be found in the *General Announcement* available from the Registrar's Office, 845 Sherbrooke St. West, Montreal, PQ H3A 2T5

4.2 STUDENT SERVICES

Full information concerning Student Services is given in the *General Announcement.*

4.3 FEES AND EXPENSES

4.3.1 Tuition Fees

The University reserves the right to make changes without notice in the published scale of fees.

Fees are due and payable 10 days after formal registration in the Faculty of Graduate Studies and Research. A late fee is charged for payment after the specified dates, and no days of grace are allowed. Fees may be paid in two instalments; second instalment payable January 15, 1983.

	Tuition per term	Tuition Foreign Students per term	Student Societies per term	Student Services per term
Master's				
— Full-time	$19 per credit	($145.00 per credit)	$21.75	$47.50
— Part-time	$19 per credit	($145.00 per credit)[2]	$13.85	($ 1.25 per credit)[2]
— Additional Session (after completion of four terms)	$20	($87.50)	$ 8.85	1
Special & Visiting	$19 per credit	($145.00 per credit)	$13.85 (load must be less than 12 credits per term)	$ 1.25 per credit

The minimum tuition fee for M.L.S. is $1,026 ($7430.40 for new foreign students).

1 Students who wish to use any of the Student Services such as Athletics, Health Service, and Guidance Service should purchase a sticker for their identity card from the Department of Athletics, 475 Pine Avenue W. or from the Dean of Students Office, Rm. 211, 3637 Peel Street. The cost is $47.50 for the Fall and Winter Terms.

2 Does not include Athletics. Athletics privileges can be purchased from the Department of Athletics at 475 Pine Avenue West or from the Dean of Students Office, Rm. 211, 3637 Peel St. The cost is $95 for the Fall and Winter terms.

SPECIAL FEES

Application for Admission	$15.00
Application for Graduation Fee	$25.00

Information concerning other special fees may be found in the *General Announcement* and the General Section of the *Announcement of the Faculty of Graduate Studies and Research.*

CONTINUING EDUCATION

$57 per three-credit course elected through the Center for continuing Education (see section 7).

Workshops and seminars are priced individually; fees are indicated in the special announcements.

4.3.2 Textbooks and Materials

Students should allow approximately $250 per term for textbooks and supplies. These are available from the University Bookstore and the School. Students in advanced data processing courses accessing external information systems are given a suitable amount of free connect time and may purchase additional time at special student rates.

4.4 FINANCIAL AID AND AWARDS

4.4.1 Scholarships and Fellowships Awarded in the Graduate School of Library Science

Applicants accepted for admission to the program leading to the degree of Master of Library Science and students entering the 2nd year of the program may apply to the Director of the

School before March 1 to be considered for the following awards which are made, after due investigation and recommendation, to deserving students who require financial assistance.

JANET AGNEW SCHOLARSHIP IN THE GRADUATE SCHOOL OF LIBRARY SCIENCE. Value: $400. Established from a bequest of the late Janet M. Agnew, a graduate of and former instructor in the School.

ETHELWYN M. CROSSLEY SCHOLARSHIP FUND. $400 from the fund founded in honour of a former student of the School.

SYRA DEENA TARSHIS FLEISHMAN BURSARY. $200 from the fund founded in memory of a former student of the School.

ELIZABETH G. HALL SCHOLARSHIP FUND. $400 from the fund founded in honour of a former member of the McGill University Library staff.

PATRICIA KEIR AWARD IN LIBRARY SCIENCE. $400 from a gift by Patrica Keir to be awarded annually to a first year Library Science student in the area of Archival Science who intends to study in the area of Rare Books.

DR. G.R. LOMER SCHOLARSHIPS. Three annual scholarships of $660 each in honour of the late Dr. G.R. Lomer, former Director of the School.

H.W. WILSON SCHOLARSHIPS. A grant in the amount of $3,000 made on a rotating basis to schools with graduate library programs accredited by the American Library Association, for distribution as scholarship aid in amounts and manner considered appropriate by the schools.

AMUL AWARD IN LIBRARY SCIENCE. $250 established by the Association of McGill University Librarians (AMUL). To be granted to a student admitted to the first year program of the Graduate School of Library Science. To be eligible, applicants must be presently employed full-time library assistants who will have completed two years' continuous full-time employment with the McGill University Library System before the deadline for application March 1.

4.4.2 Scholarships and Fellowships Awarded by Outside Agencies

L'ASTED (l'Association pour l'avancement des sciences et des techniques de la documentation) décerne chaque année une bourse à un étudiant de 2e année de maîtrise en bibliothéconomie (McGill ou Montréal). Pour de plus amples renseignements, écrire à l'ASTED, 360, rue Le Moyne, Montréal, Québec H2Y 1Y3.

The *Canadian Library Association* offers the following scholarships:
Howard V. Phalin-World Book Graduate Scholarship in Library Science. Maximum $2,500; Number available: One; Duration: One academic year, i.e., two semesters or three quarters; Tenable: At an accredited library school in either Canada or the United States.
Normally candidates will already hold a B.L.S. or an M.L.S. degree but in exceptional circumstances consideration will be given to an outstanding candidate with a degree in another discipline who wishes to obtain a B.L.S. or an M.L.S. Conditions: Award must be used for a program of study or series of courses either leading to a further library degree or related to library work in which the candidate is currently engaged or to library work which will be undertaken on completion of the program or courses. Must be Canadian citizen or have landed immigrant status.

H.W. Wilson Foundation Scholarship. $2,000; Number available: One; Duration: One year; Tenable: For entrance to an accredited Canadian library school. Consideration given to academic standing and financial need. Conditions: Must be Canadian citizen or have landed immigrant status; must be a candidate for the first professional library degree.

CLA Dafoe Scholarship. $1,750; Number available: One; Duration: One year; Tenable: For entrance to an accredited Canadian library school. Consideration given to academic standing and financial need. Conditions: Must be Canadian citizen or have landed immigrant status; must be a candidate for the first professional library degree.

Deadlines for all scholarships: March 1. For further information or application forms: Scholarships and Awards Committee, Canadian Library Association, 151 Sparks Street, Ottawa, Ontario K1P 5E3.

The *Special Libraries Association* offers up to three $3,000 scholarships for graduate study leading to a master's degree at a recognized school of library or information science in the United States or Canada. College graduates or college seniors (citizens of the U.S. or Canada) with an interest in special librarianship are eligible. Work experience in a special library is helpful. Further information and application forms may be obtained by writing to the Special Libraries Association, Scholarship Committee, 235 Park Avenue South, New York, N.Y. 10003. Applications must be filed by January 15.

The *National Research Council of Canada*, in cooperation with the Advisory Board for Scientific and Technological Information, offers a

limited number of scholarships to assist science or engineering graduates to obtain advanced degrees in the fields of science librarianship and documentation. The awards are made on the basis of high scholastic achievement and evidence of suitability for a career as a science librarian or science information specialist. Applicants must be Canadian citizens or landed immigrants. All communication regarding these scholarships should be addressed to: The Scholarship Officer, Office of Grants and Scholarships, National Research Council of Canada, Ottawa, Ontario K1A 0R6. Application must be filed not later than December 1.

The *Canadian Federation Of University Women* offers a professional fellowship with a value of $3,500 open to any woman who has completed a degree from a Canadian university, who is a Canadian citizen or who has held permanent resident status for one year prior to submitting application and who wishes to pursue graduate work at an accredited professional school. Information and application forms may be obtained from the Canadian Federation of University Women, *before July 31, 1982:* Université de Montréal C.P. 6128, Succ. "A" Montréal, Québec H3C 3J7; *after July 31, 1982:* Malaspina College, Wakefiah Campus, 900 5th Street, Nanaimo, BC V9R 1P9.

Beta Phi Mu, the International Library Science Honor Society, offers a scholarship with a value of $1,000 to a student at the Master's level accepted in an American Library Association accredited program. Application forms are available from the Executive Secretary, Beta Phi Mu, Graduate School of Library and Information Sciences, University of Pittsburgh, Pittsburgh, PA 15260. Deadline for application is March 15.

The Canadian government under the *Commonwealth Scholarship and Fellowship plan* offers scholarships for students from other Commonwealth countries to study in Canada. Awards are usually made for two academic years and cover return transportation, tuition fees, and a grant for personal and incidental expenses. Information and application forms may be obtained from the Association of Universities and Colleges of Canada, 151 Slater Street, Ottawa, Ontario K1P 5N1.

4.4.3 Fellowships Awarded by The Universitly

Students will be considered for fellowships administered by the Faculty of Graduate Studies and Research for which they are eligible. These include the J.W. McConnell Memorial Fellowships and the Graduate Faculty Research Fellowship Programs for graduate students in all disciplines. Details of these awards are found in the booklet *Postgraduate Fellowships, Bursaries, Loan and Prizes.* This booklet and application forms are available from the Fellowships Office, Faculty of Graduate Studies and Research, Dawson Hall, McGill University, 853 Sherbrooke Street West, Montreal, PQ H3A 2T6

4.4.4 Bursaries and Loans

Students in any discipline who are residents of Québec can apply for an F.C.A.C. bourse. Also available to such students is a Québec Bursary and Loan. Application forms and information brochures are available in the Office of the School of Library Science.

Canadian citizens and permanent residents are eligible for a guaranteed student loan in the province or territory where they have resided for a year preceding the date of application. Residents of Québec apply after May 1 at the McGill Student Aid Office, 3637 Peel Street, Montreal, PQ H3A 1X1, for these loan funds financed by the Federal and Provincial governments; residents of other provinces apply through their provincial ministries of education.

Additional information including a list of sources of information on awards for graduate study is provided in the above-mentioned booklet, *Postgraduate, Fellowships, Bursaries, Loans and Prizes.*

4.4.5 Other

American students are also advised to write to the SCOLE (Standing Committee on Library Education), American Library Association, 50 East Huron Street, Chicago, Ill. 60611, for a *copy of Financial Assistance for Library Education.*

4.5 PLACEMENT

The Canada Employment Centre at McGill provides a range of services to McGill students and recent graduates (Canadian citizens or landed immigrants). Students who seek information about career and job opportunities are invited to consult a placement counsellor.

In addition, the School receives and posts notices of job openings throughout North America; the colloquium series includes subjects related to employment.

The School investigates ways in which employers and students can be brought closer together and attempts to monitor professional employment opportunities and developments. The School also seeks information about the careers of its graduates as an aid in planning future placement efforts. Each year, a "Get-Acquainted Day" for employers and second-

year students is held at the School; invitations to attend are sent to a wide range of potential employers.

American students are eligible to compete for Library of Congress and National Library of Medicine internships (information about these is available at the School). They are also eligible for all positions in the U.S. which require graduation from an ALA-accredited school.

4.6 COUNSELLING

The School has a program of counselling for students. It is designed both to help students plan their careers and choose appropriate courses, and to assist students who have particular concerns or problems. Students are assigned Faculty advisers at the beginning of the first term. During orientation week, they will meet each day with their advisers for discussion, and regular group meetings will be scheduled throughout the first year. Before choosing elective courses, students should discuss their plans with their advisers. Though students are free to go to the Director or to discuss courses with any instructor, the advisers are available to talk over any matter of concern.

5 INSTRUCTIONAL PROGRAM

5.1 ORIENTATION PROGRAM

All M.L.S.I students are required to participate in a one-week program designed to introduce them to the many-faceted world of information. Through lectures by faculty and guests, discussion, and tours, they will acquire a framework for courses in librarianship and information science, and a sense of professional identity. Students will be grouped with their faculty advisers for discussion, both during orientation week and afterwards when they will attend a series of colloquia. The week will begin on the Wednesday prior to the beginning of classes and continue through Tuesday. New students entering the M.L.S. II program are invited to participate in the first three days of orientation.

5.2 REQUIRED COURSES

The instructional program consists mainly of required and elective courses; they are supplemented by colloquia and field trips. The first year consists of eight required courses:

FALL TERM

405-605 Reference Materials and Methods I
405-607 Organization of Materials I
405-611 Research Methods I
405-609 Technical Services
OR
405-626 Selection of Materials

WINTER TERM

405-606 Reference Materials and Methods II
405-610 Data Processing
405-620 Management
405-609 Technical Services
OR
405-626 Selection of Materials

In addition, one elective may be taken during the winter term.

5.3 ELECTIVE COURSES

The total of ten electives in the M.L.S. program can be chosen from amongst the over 30 such courses taught during any one academic year; four can be appropriate outside courses (see 6.3). Students can design individualized programs of instruction that take advantage of their backgrounds and interests to prepare them for specialized careers. During their first term of study while they are following the required courses, students should start to investigate their options and discuss their plans and problems with their faculty advisers.

5.4 COLLOQUIA

Guest lectures and colloquia, open to all interested, by specialists and prominent individuals in fields related to the library profession are an important part of the School's instructional program which is integrated with the Orientation Program (see 5.1).

5.5 FIELD TRIPS

In order to gain insight into the diversity of library service first-year students visit the Bibliothèque Nationale du Québec, the Bibliothèque de l'Ecole des hautes études commerciales and a number of other libraries in Montreal, as well as Laval University Library in Québec City. An excursion to Ottawa is arranged, during which students hear lectures about and are given detailed tours of the National Library of Canada and the Canada Institute for Scientific and Technical Information, by members of each institution's own staff. Certain second year courses also involve examination of selected libraries and information centres by smaller groups of students.

5.6 SUMMER COURSES

The School schedules for each summer two or three of those regular courses which lend themselves to a concentrated 3-week format. Instruction is usually by visiting experts. Special institutes or seminars may also be arranged if the opportunity arises. Information regarding the course(s) to be offered in the summer will be made available during the Winter term.

5.7 LANGUAGE POLICY

The language of instruction at McGill is English. Students may write term papers and examinations in French, but reasonable competence in English is essential to succeed. A summer course, English 110-150T is offered and it is recommended that students who lack fluency in English take this summer course before embarking on a program of study at McGill. Information and application material may be obtained by writing directly to the Summer Session Office.

Students who wish to increase their knowledge of French while studying Library Science will find many opportunities for doing so. In addition to the various language courses in Montreal, the School offers two credit courses geared to the needs of those who will work in the French language environment: *Bilingual Information Systems* and *Québec Information Systems,* both requiring some knowledge of the language. The School also sponsors *Library Communications in French* through the Centre for Continuing Education. (See 7.3)

5.8 COURSE SCHEDULES

• Denotes a course which at the time of the preparation of the calendar is not expected to be taught in the next academic year.

Detailed class schedules are sent to students in April and November.

5.9 MARKS

Final marks are based on the term's work and/or on examinations. Classification of marks:

A (85-100%), A – (80-84%), B + (75-79%), B (70-74%), B – (65-69%), and F (less than 65%). Instructors may use either alphabetic or numeric grades.

Students who do not fulfill requirements satisfactorily may be asked to withdraw from the School.

Regulations concerning failures and supplementals appear in the *Graduate Faculty Announcement.*

6 COURSE DESCRIPTIONS

6.1 REQUIRED COURSES

There are 9 courses in the first year, 8 required and 1 elective.

405-605 REFERENCE MATERIALS AND METHODS I. The fall term introduces students to the nature, functions, and types of bibliographies, and to the concept of bibliographic control, in hard copy and machine readable formats, of book and non-book materials.

405-606 REFERENCE MATERIALS AND METHODS II .The winter term concentrates upon two topics. The first is reference service which involves topics such as interviewing techniques and search strategy. The second topic of concentration is factual sources of information like encyclopaedias and dictionaries, and their place within the context of information transfer.

405-607 ORGANIZATION OF MATERIALS I. Introductory course in the techniques of bibliographic control of library materials. Basic cataloguing principles and practices incorporating concepts of main entry, subject analysis and classification according to standard cataloguing codes. The use of the ISBD formats for descriptive cataloguing. Formal instruction is accompanied by practical assignments in a well-equipped cataloguing laboratory.

405-609 TECHNICAL SERVICES. The course considers the entire library system, concentrating on the principles and procedures in such technical processes as acquisitions, circulation control, reserve collections, serials management, and the preservation of materials. Includes some administrative matters such as budget preparation and the effects of the increased use of para-professionals in both manual and automated technical processes.

405-610 DATA PROCESSING. Basic concepts related to data processing and computers and an introduction to the use of computers in and for libraries and related information facilities.

405-611 RESEARCH METHODS I. Examines the fundamental aspects of reflective thinking and the methods and techniques of research approriate to the investigation of library/information problems. Introduces students to criteria helpful in evaluating published research in library/information science by analyzing the various steps of the research process, thereby providing guidelines for planning, conducting, and reporting of research.

405-620 MANAGEMENT. A basic introduction to the field of management including organizational structure, climate, and behaviour. Attention is given to the role of the librarian in complex organizations with particular stress on such topics as planning, leadership, motivation, decision making, supervision, employee relations, and financial accountability.

405-626 SELECTION OF MATERIALS. Principles and practices of selecting, maintaining, and evaluating materials in libraries and similar information facilities. Acquaints students with the essential professional tools, and alerts them to issues that affect collection development.

6.2 ELECTIVE COURSES

405-608 ORGANIZATION OF MATERIALS II. (Prerequisite: 405-607). Cataloguing in depth with a view to such specialties as original cataloguing, catalogue maintenance, and administration of the cataloguing department. Investigation of alternative methods of library documentation. The study of developments in international cataloguing standards, codes, and formats. Includes laboratory sessions.

405-612 HISTORY OF BOOKS AND PRINTING. (Prerequisite: 405-605). Surveyed are the development of writing, alphabets, and books from their inception, and of printing from its invention in the fifteenth century.

405-613 AUDIOVISUAL MATERIALS. The course explores the characteristics of leading types of audio-visual media with respect to technology and user needs. The role of media and the control and management of media in libraries and other information facilities are covered; students will engage in production projects and learn to use projection equipment.

405-614 PUBLIC LIBRARIES. (Prerequisite: 405-620). The history, organization, and development of public libraries with attention to current practices and problems. Emphasis will be on the function of the public library in the community, its social role and its governmental environment, with a focus upon Canadian public libraries.

405-630 COLLECTION DEVELOPMENT. (Prerequisite: 405-626). Standards for research collections and quantitative and qualitative criteria for evaluating them. Formulation of an acquisitions policy and elements of an acquisitions program. Inter-library relationships, library specialization, and cooperative programs as factors in the development of collections. Developing research collections in special subject fields.

405-631 SYSTEMS ANALYSIS. (Prerequisites: 405-605, 405-607, 405-610, 405-611, 405-620). Systems concepts as they apply to the design, implementation, and evaluation of information systems, and particularly Management Information Systems (MIS). Selected techniques are explored in depth; consideration is given to the impact of human behaviour and of computer technology on possible solutions.

405-632 LIBRARY AUTOMATION AND NETWORKING. (Prerequisites: 405-607, 405-610, 405-611). A comparative examination, from the point of view of the user, of important systems, activities, and problems in library automation. Emphasis is on developments and trends.

405-633 INFORMATION STORAGE AND RETRIEVAL. (Prerequisites: 405-606, 405-607, 405-610). Principles of information retrieval and its use in libraries and information facilities; laboratory exercises in online searching, accessing external data bases. Management problems associated with the provision of online search services are also examined.

405-634 DEVELOPMENTS IN CATALOGUING AND CLASSIFICATION I. (Prerequisite: 405-607). Seminar to explore in depth particular problems and research in cataloguing and classification. Topics vary depending on current developments in the "state-of-the-art".

405-635 DEVELOPMENTS IN CATALOGUING AND CLASSIFICATION II. (Prerequisite: 405-607). Course description as for 405-634 above.

405-636 GOVERNMENT PUBLICATIONS. (Prerequisite: 405-605). The nature and scope of official publications of Canada, Great Britain, the United States, and the United Nations; their acquisition, bibliographic organization, and use.

405-637 SCIENTIFIC AND TECHNICAL LITERATURE. (Prerequisite: 405-606). Introduction to the process of communication and information requirements in the scientific community; sources of scientific and technical information; study of representative reference sources in specific fields of basic and applied science.

405-638 BUSINESS LITERATURE. (Prerequisite: 405-606). A survey of the literature used in business including bibliographic and non-bibliographic data bases. Various aspects of business are described to set the scene for a study of the literature. Students examine key publications, and learn to select a basic business bibliography and to do reference work in the field.

405-639 SPECIAL LIBRARIES (Prerequisite: 405-620). A practical course on administration

of special libraries using a simulation technique. Following a general introduction, the class, working in groups, sets up and puts into operation a hypothetical special library. Class discussion and visits to special libraries are of paramount importance.

405-640 COLLEGE AND UNIVERSITY LIBRARIES. (Prerequisite: 405-620). Examines the history, development, and current trends in higher education. Against this background the role and problems of libraries of academic institutions are studied. Topics discussed include administration, organization, service to undergraduates, service to graduate students and faculty, surveys, standards, interlibrary cooperation.

405-642 MATERIALS FOR CHILDREN. Survey of the history of children's literature in English from its beginnings in folk literature through the mid-twentieth century; study of criteria for the selection and evaluation of children's books, traditional and modern; consideration of standard selection aids; and examination of current titles in relation to the child's reading interests, needs, and abilities.

405-643 MATERIALS AND SERVICE FOR YOUNG ADULTS. Study of the interests, needs, and reading habits of young adults; survey of books of special appeal to the adolescent; evaluation, selection, and use of print and non-print materials in high school and public libraries; development of library programs; study of issues related specifically to young adults, including censorship, literacy, and problems of the future.

405-644 RARE BOOKS. (Prerequisite: 405-605). This is a brief, practical course on books in rare book departments, with mention of the different kinds of material to be found there and also a few of the special problems arising in the day-to-day running of such a department. Books, maps, and prints are shown, attendance at a book auction is arranged, as well as a visit to an antiquarian book shop; visiting lecturers speak on their specialties.

405-645 ARCHIVAL SCIENCE. Introduces librarians to the literature on archives, historical manuscripts, and records management. Definitions, principles, and terminology in these three fields are compared with those in library science. Also covers selection, conservation, finding tools, and controls, and the impact of technological developments.

Note: Advanced work in achival science is available to a few students who do well in the introductory course. It is elected as Independent Study, and requires prior consultation with the Unifersity Archivist and the Director.

405-646 RESEARCH PROJECT. (Prerequisite: 405-611, 405-648). A year-long study for students having the necessary experience or academic background. Permission to undertake the study is granted by the Director of the School.

405-647 INDEPENDENT STUDY. (Prerequisite: 405-611). An in-depth exploration of a topic in library science which is not emphasized or elaborated on in any other part of the curriculum. Students electing this option work under the direction of a faculty adviser. Permission to register for this is given to students after consultation with the Director of the School.

405-648 RESEARCH METHODS II. (Prerequisite: 405-611). Introduces the student to data gathering, analysis, and interpretation with a primary emphasis on quantitative methodology. Briefly introduces appropriate parametric and nonparametric measures applicable in the library environment. Computerized statistical packages are also introduced.

405-649 LIBRARY PLANNING AND ARCHITECTURE. This course is concerned first with promotion work, the building committee, the building program, the study of the community, and the determination of the site. It then deals with the problem of space allocation and with furnishings. Renovation, as well as expansion and new buildings are considered. Part of the course is given by an architect and various libraries are visited.

405-650 SERVICE TO CHILDREN. The objectives, standards, functions, and services in school and public library work with children, including trends in the development of elementary and secondary school media centres. The case study method is used in examining problems relating to the organization, administration, and evaluation of children's services.

405-651 REFERENCE SERVICE IN THE HUMANITIES AND SOCIAL SCIENCES. (Prerequisite: 405-606). This course investigates the conceptual orientation of the disciplines and their constituent subjects. Also considered are the information needs of researchers in these fields and the extent to which reference sources meet these needs.

405-652 COMMUNICATION MEDIA AND THE LIBRARY. The intention of the course is to use a model of the communication process to describe the culture and society that is the context of libraries; to analyze the interaction process between the library and the community; to analyze and improve library operations by prediction based on the model.

405-656 INDEXING. (Prerequisite: 405-607). Investigates the principles and practical methods of indexing library materials. Topics include various methods of indexing books, periodicals, newspapers, report literature. Also deals with construction and applications of thesauri, coordinate indexing, and abstracting.

405-660 RECORDS MANAGEMENT. Through a combination of lectures, presentations, and simulation projects, students examine how organizations can manage their unprinted information and control the creation, practical use, maintenance, storage, protection, and disposition of records. In covering new fields such as micrographic and word processing, the course will also deal with the impact of modern technology on the creation and circulation of information.

405-671 BIOMEDICAL LIBRARIES. (Prerequisite: 405-606). Examines differents types of health science libraries; medical schools and organizations in health-related fields; the application of modern library techniques to the management of such libraries; special service problems, and current trends.

405-672 LAW LIBRARIES. (Prerequisite: 405-606). The nature and scope of law librarianship and legal bibliography; discussions of the organization of legal knowledge, the legal profession and the librarian's role in it; hands-on experience with automated information systems.

405-680 BILINGUAL INFORMATION SYSTEMS. (Prerequisites: 405-607, adequate knowledge of French). Deals with utilization of bilingual information systems. Adaptation of English language cataloguing rules, classification systems, indexes and thesauri to a French environment will be discussed. A study of the specialized French language terminology is an integral part of this course.

405-681 QUÉBEC INFORMATION SYSTEMS. (Prerequisites: 405-633, adequate knowledge of French). This course examines the development of Québec information systems, concentrating on those with online retrieval capabilities relating them to systems of non-Québec origin being utilized in Québec.

405-690 ISSUES IN INFORMATION. (Prerequisite: Consent of instructor). A cross-disciplinary examination of present and near-future effects of technological advance, national and international cooperation, copyright laws, rising costs, etc., on the development of new methods of processing and disseminating information and consequent new roles for librarians. Reflecting the Canadian viewpoint, emphasis is on immediate problems and possible solutions.

6.3 OUTSIDE COURSES

The Graduate School of Library Science encourages its students to elect up to four half courses (the equivalent of 12 credits) outside the School provided that the student possesses the necessary prerequisites. Possibilities for graduate study at McGill include not only the usual disciplines which continue from undergraduate programs but also a number of specialized institutes in which study commences at the graduate level. (See the *Announcement of the Faculty of Graduate Studies and Research).*

It is not feasible to list in this Calendar all McGill courses appropriate for election by M.L.S. students since undergraduate study, progress in Library Science, and career plans are all individual matters affecting such decisions. While Library School counsellors are prepared to help, students must take the initiative in contacting the various instructional units to ascertain how they handle outside registrants.

In the following section several courses are listed given by other academic units at McGill. These are selected for their relevance to the study of library and information science.

6.3.1 Faculty of Management

Librarians are increasingly finding professional courses in management helpful in preparing themselves for careers which call for managerial skills. Of the many courses in the McGill M.B.A. I program, three have been identified as particularly suited to the needs and interests of students in the M.L.S. program as follows. For further information, students are invited to consult Professor Roger C. Bennett in the Faculty of Management.

271-611 ACCOUNTING — A MANAGEMENT APPROACH.

272-621 ORGANIZATIONAL BEHAVIOUR.

275-651 MARKETING MANAGEMENT I.

Courses in the developing area of Management Information Systems are also relevant, and attract the attention of library science students.

273-635 ADVANCED TOPICS IN SYSTEMS TECHNOLOGY.

273-636 INFORMATION SYSTEMS ADMINISTRATION.

273-637 INFORMATION SYSTEMS DESIGN.

273-638 ADVANCED TOPICS IN SYSTEMS APPLICATIONS. (Pre-requisite: Computers 273-631).

6.3.2 Faculty of Education

A number of courses are recommended to students, who take a particular interest in library service to children and young adults, and particularly in school librarianship and audio-visual service in libraries. More details about the following courses may be obtained from the Director or from Professor David Smith, Associate Dean (Academic), Faculty of Education.

433-325 CHILDREN'S LITERATURE.

433-466 READING IN THE CONTENT FIELDS.

430-390 SECONDARY SCHOOL CURRICULUM.

411-642 DEVELOPMENT AND ADMINISTRATION OF THE SCHOOL CURRICULUM. (full course)

411-646 EDUCATIONAL PLANNING AND MANAGEMENT.

432-406 MANAGEMENT OF EDUCATIONAL MEDIA SERVICES.

432-309 THE LIBRARY RESOURCE CENTRE.

414-618 DESIGN AND EVALUATION OF INSTRUCTIONAL MATERIALS. (full course)

414-619 THE COMPUTER IN EDUCATION. (full course)

412-620 ADVANCED CHILD PSYCHOLOGY.

412-640 ADOLESCENT DEVELOPMENT.

433-467 SPECIAL TOPICS IN READING.

432-404 CONTEMPORARY DEVELOPMENTS IN EDUCATIONAL MEDIA.

414-592 PSYCHOLOGY AND INSTRUCTIONAL DESIGN.

6.3.3 Faculty of Arts, Department of English

This faculty offers several courses of value to students of library and information science. Of particular interest is the interdepartmental communications program offering courses and seminars such as:

109-645 METHODOLOGY.

109-650 LINGUISTIC MODELS IN RELATION TO HUMAN COMMUNICATION ISSUES.

109-660 COMMUNICATION AND DEVELOPMENT.

109-752 RESEARCH SEMINAR IN SPECIAL TOPICS: TECHNOLOGY AND SOCIETY: A CASE STUDY OF TELEMATICS.

109-783 ADVANCED SEMINAR IN THEORIES OF COMMUNICATION: SOCIAL INTERACTIONISM AND CULTURAL STUDIES: ATTEMPTS AT DEFINING THE PROBLEMATICS OF COMMUNICATIONS.

110-275D COMMUNICATIONS AND LITERATURE. (full course)

110-344D LITERATURE AND SCIENCE. (full course)

110-378D CRITICAL APPROACHES TO COMMUNICATIONS STUDIES. (full course)

110-384D STUDIES IN COMMUNICATIONS. (full course)

110-485D MODES OF COMMUNICATION. (full course)

Courses of special value to students interested in children's libraries and school librarianship:

110-340A INTRODUCTION TO CHILDREN'S LITERATURE I.

110-341B INTRODUCTION TO CHILDREN'S LITERATURE II.

110-342B SPECIAL TOPICS IN CHILDREN'S LITERATURE.

6.3.4 Québec Universities

With the permission of the Director, some of the 12 credits in outside courses may be taken at any Québec University, provided the courses are not available at McGill. (Particular attention is drawn to the École de bibliothéconomie de l'Université de Montréal). These courses will be credited towards the M.L.S. degree. For further details, consult the *General Announcement.*

7 CONTINUING EDUCATION

There is a growing realization in professional schools of every type that true professional education is a life-long process. Contributions to that process have, accordingly, been incorporated into the program of the Graduate School of Library Science at McGill. A variety of formats is used, and a variety of students is served, the largest group being librarians holding the M.L.S. degree or its equivalent from schools accredited by the American Library Association. For students holding the accredited B.L.S. (no longer offered in Canada)

continuing education involves either earning the M.L.S. or taking courses without the degree commitment. Librarians holding degrees from schools outside North America may find themselves in this category. Degree-candidate students benefit from the association with working librarians, who in turn encourage the process of updating and innovating the entire instructional program. For requirement for admission see 3.2.5 above.

7.1 DAYTIME COURSES

Most term-long daytime courses in the School are open to librarians with the M.L.S. or B.L.S. Students who are not interested in earning another degree take these courses by applying for status as special students during the terms in which the courses are offered. This also applies to Summer Session.

7.2 EVENING COURSES

Some term-long courses are occasionally offered during the evening to accommodate daytime work schedules. Usually these courses are also available through the Centre for Continuing Education. These courses do not earn graduate credit at McGill.

7.3 LIBRARY COMMUNICATIONS IN FRENCH

Available only through the Centre for Continuing Education is the course especially designed for the Centre: *Library Communications in French* (670-406x-51). Students qualify for this course by the French-language placement test given in August. The purpose of this course is to teach the librarian to communicate in French. Extensive practice in comprehension and expression of oral and written French necessary to function in a French library or to exchange information with a French speaking librarian. Students will be required to do practical assignments in French in their own milieu or in a French library. For further information, contact the Centre for Continuing Education.

7.4 SEMINARS, WORKSHOPS

Also designed especially for continuing education are workshops and seminars. They may be organized to meet particular local needs, or they may be international in their appeal. Students are usually invited to participate in events of this nature, providing further opportunities for interaction between students and practitioners, many of them potential employers.

Continuing education opportunities apart from regular courses are announced in news releases and special mailings. Individuals or institutions who wish to receive the announcements should contact the School and request to be placed on the mailing list.

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1982-83
FACULTY OF GRADUATE STUDIES AND RESEARCH

McGill University
Montreal

Section "I"
Management

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The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

1 STAFF

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2 HISTORY AND INTRODUCTION

2.1 HISTORY

In 1962, after several years of design and preparation, McGill's Faculty of Graduate Studies and Research established the Graduate School of Business. During the year following, new faculty members were hired and considerable time was devoted to the final formulation of a new M.B.A. curriculum. The first class was admitted and teaching began in Duggan House in September 1963.

Next door, In Purvis Hall, the undergraduate School of Commerce, part of the Faculty of Arts and Science, continued to function as a separate entity.

An ever-increasing demand for expansion, requiring a controlled and coherent policy which would relate graduate and undergraduate programs, resulted in the merger of the two schools as the Faculty of Management, on June 1, 1968.

The Faculty embraces all management and business education at the University. The undergraduate Bachelor of Commerce degree program and the Diploma in Management program are offered by the Faculty of Management and the Master of Business Administration program is offered by The Faculty of Management in conjunction with the Faculty of Graduate Studies and Research which awards the M.B.A. degree. In 1972 the Faculty moved to the modern facilities of the new Samuel Bronfman Building, in close proximity to the business and commercial heart of downtown Montreal.

The Howard Ross Library of Management, named in honour of a former Dean of the Faculty and Chancellor of the University, is conveniently located on the second floor of the Samuel Bronfman Building. The collection covers business and management, finance, accounting, marketing, industrial relations, industrial psychology, computer programming, statistics, taxation and economics. There are over 184,000 volumes of books, pamphlets, periodicals, corporation and other reports and monographs, together with a collection of government documents.

The library serves a wide community. Many business concerns in the Montreal area, as well as students and staff from the other McGill faculties, use its resources.

Students of the faculty of Management have full access to most of the 3,700,000 items provided by the University Library System, many of these located in McGill's specialized collections.

2.2 INTRODUCTION

McGill University offers three programs *(which are briefly described in sections 2.3, 2.4 and 2.5) which provide graduate level education in management. Although all three programs have much in common, each has been tailored to meet the unique needs and demands of different groups of people. Therefore, before embarking into graduate management education, students should be aware of the differences and unique features of each program, and select the program which best suits their aspirations and abilities.

**A fourth is the Joint Ph.D. Program in Administration.*

2.3 THE McGILL M.B.A. FULL-TIME PROGRAM

This is a two year M.B.A. program designed for students who want to devote their energies and time to an intensive learning experience, on a full-time basis. Students attend day-time classes from September to April (only) for two years.

The first year of the program is highly integrated, with each course fitting in with the others. Year two involves a Concentration in one field. A September starting date for both years is necessary due to the integrated nature and structure of the program.

The full-time McGill M.B.A. is a *graduate degree* program with entrance restricted to only the best candidates.

2.4 THE McGILL M.B.A. PART-TIME PROGRAM (EVENING)

This M.B.A. program is designed for the person with a full-time job, who wants to continue working while seeking the M.B.A. degree. The program extends over a maximum of six years to completion with all classes given in the evening. Students may begin courses in any one of the four terms, taking one or two courses per term. Most students take two courses per term.

The first year of the program is comprised of 10 credit courses and one non-credit course; the second year has two required courses, Management Policy and Skill Development, plus eight free electives. A concentration is not required. The courses are offered four times a year – Fall, Winter and two Summer terms. Courses are prespecified and a prescribed sequence must be followed. This is a Part-Time program and students are not permitted to pursue this program on a Full-Time basis.

The evening program is also a *graduate degree* program. The entrance requirements, while tailored to the needs of more mature students, are nonetheless rigorous and in full accordance with the regulations of the Faculty of Graduate Studies and Research at McGill.

2.5 THE McGILL PART-TIME DIPLOMA PROGRAM (EVENING)

The Diploma program is designed to provide graduate level education to persons who wish to continue in management education, but are not necessarily interested in obtaining a degree. Here students are free to design their own programs (within limitations) from among a list of M.B.A. I and other approved courses.

All Diploma courses are offered in the evening over the same four terms as the M.B.A. Part-time Program. Entrance requirements are flexible, but the applicant must possess an undergraduate degree in good standing from an approved university.

2.5.1 Combined Program

Students should also be aware that it is possible, with permission, to combine programs. Many students begin their graduate courses in the Diploma program and later switch into M.B.A. I in the Part-time Program (a degree program). A very popular and recommended route for the part-time student is to take the first year of M.B.A. at night over several years, and then the second year on a full-time basis (eight-month leave from employment) in the M.B.A. II Day Program.

Although it is possible, and often desirable, to combine programs as noted above, please note that students cannot automatically transfer from one program to the other. Each program is designed to meet specific needs and wants, and there are differences in the entrance requirements for all three programs. Thus, when transferring from one program to another, students are expected to meet the entrance standards of the program to which they are transferring. For example, the full-time (day) student, besides having an undergraduate degree in good standing, is also expected to possess a strong academic record from previous courses and a solid GMAT score.

2.6 SPECIAL PROGRAMS

In addition to the above three programs there are also speciality programs available. For example, the M.B.A./Law Program and the M.B.A./Management Science Option are designed to meet special interests.

2.6.1 Joint M.B.A./Law Program

The Faculty of Management, in cooperation with the Faculty of Law, offers a joint M.B.A./Law degree. This program is unique in Canada as it consists of two separate programs, M.B.A./B.C.L. and M.B.A./L.L.B. degrees. The B.C.L. program prepares students for admission to the Québec legal profession only, while the L.L.B. degree prepares students for admission to the Bars of the Common Law Provinces.

The combined degree program has been designed for those students who are interested in both the legal and administrative aspects of business and will help prepare them for careers in private and public enterprises as well as government service. The joint program may be completed in four years instead of the five that would be required if each degree were taken separately.

Students who are interested in applying for either the M.B.A./B.C.L. or M.B.A./L.L.B. degrees must meet the entrance requirements of both Faculties, and must also demonstrate a substantial fluency in both the French and English languages.

The first year of the combined degree program will be spent entirely in the Law Faculty and the second year in the Faculty of Management completing the first year of the M.B.A. program in addition to two Law courses at the same time. The third and fourth years will be comprised of courses from both Faculties.

2.6.2 Management Science Option

Management science course offerings stress conceptual and practical problem solving skills and familiarize students with modern mathematical and computational decision-making tools. Although a student may choose to take the regular M.B.A. program and concentrate in Management Science as described in the Concentration Descriptions section of this calendar, students with the requisite mathematical background and aptitude will have an opportunity to gain wider and deeper technical preparation in the field within the same two-year program.

This stream of the M.B.A. program is available to students who wish to prepare for careers in business or government as operations researchers, systems analysts or applied statisticians. Acceptance to the stream requires the approval of the Management Science adviser. Mathematical pre-requisites include a knowledge of calculus and elementary linear algebra. Evidence of analytical aptitude, as exhibited by course grades in mathematics, and the quantitative GMAT score, is also necessary for acceptance.

Students in the Management Science stream must satisfy all the normal requirements for the M.B.A., and their elective courses must be concentrated in the management science area. This concentration is accommodated by the following adaptation of the regular M.B.A. schedule.

First year:

Students in the Management Science stream shall ⅓) replace Basic Management Statistics (277-613) by an approved course in Mathematical Statistics; and 2) defer their choice of Introduction to International Business (278-686) or Industrial Relations (278-687) to their second year. In all other respects, the first year of the M.B.A. program is unaffected.

Second year:

Students in the Management Science stream shall take the following courses:

A. 277-671 Statistics for Business Decisions

B. *Two from:*
- 277-632 Sample Survey Methods and Analysis
- 277-633 Applied Decision Analysis
- 277-675 Applied Time Series Analysis for Managerial Forecasting
- 277-676 Applied Multivariate Data Analysis

C. *Two from:*
- 277-678 Simulation of Management Systems
- 277-679 Applied Optimization I
- 277-680 Applied Optimization II

D. *One from:*
- 278-686 Introduction to International Business
- 278-687 Industrial Relations

E. 280-632 Skill Development
276-631 Management Policy

F. A research paper (supervised by one of the Management Science staff) or two elective courses (approved by the Management Science adviser).

Note that Sections 3 to 11 pertain to the McGill Full-time M.B.A. program; Section 12 to the McGill Part-time M.B.A. program; Section 13 to the Diploma in Management program and Section 14 to the Joint Ph.D. program.

3 APPLYING TO THE McGILL M.B.A. FULL-TIME PROGRAM

3.1 ADMISSION TO THE FIRST YEAR M.B.A. PROGRAM

Students may apply to the McGill M.B.A. provided they possess an undergraduate degree, other than in education, from an accredited university.

Requirements for admission include:

a) an undergraduate degree, other than education, from an accredited college or university, with a Grade Point Average of at least 3.0 out of a possible 4.0, or at least a 70. or B average;

b) a score of at least 500 on the Graduate Management Admission Test and 600 on the Test of English as a Foreign Language. The latter is required of non-Canadian students whose mother tongue is not English and who have not had at least three years of formal education in English.

Note that the above criteria are generally viewed as the minimum entrance criteria before applicants are seriously considered by the Admissions Committee. The large number of applicants to the McGill M.B.A. and the desire to keep the program at a moderate size means that merely meeting the above criteria does not guarantee acceptance. Moreover, other factors are considered, including letters of reference, work experience and potential for managerial effectiveness.

3.1.1 Advanced Standing Admission

Students with a B.Com. or B.Eng. with a minor in management degree from McGill, or equivalent,

and a CGPA of 3.4 or better, may be eligible for credit for up to five half courses in the first year of the M.B.A. program.

In order to qualify for Advanced Standing, students will be expected to complete the five, or six, remaining M.B.A. I courses on a part-time basis while maintaining full-time employment in a job related to the M.B.A. program. Students will also be required to write a research paper in addition to the remaining courses and present the paper by the time they have completed the second year.

Students who have passed the Uniform Final Examinations of the Order of Chartered Accountants of Québec are eligible for credit for up to 6 half courses in the first year of the MBA Program. Proof of membership in the Order is necessary when requesting credits.

3.1.2 *Application Procedure for Admission*

The McGill M.B.A. program begins in September of each year and applications must be received by May 15. Early applicants will be given preference. Applicants are advised of the admissions decision as soon as all supporting documents and test scores are received. The undergraduate record, GMAT and TOEFL scores (where applicable), work experience and letters of reference are the criteria used in making selections. A personal interview is not mandatory although candidates may be requested by the Admissions Officer to appear for such an interview.

Acceptance into the McGill M.B.A. program will be honoured for three years for any applicant wishing to postpone entry. A student applying for a delay must do so, in writing, before the deadline date in order to obtain a refund of the deposit fee of $100.

The application procedure is:

a) Please complete the application form and Personal Background Sheet. Return the first three copies of the application form along with the Personal Background Sheet and the $15 fee, in Canadian funds, payable by certified cheque or money order to McGill University, TO:

The McGill M.B.A. Program
Admissions Officer
Faculty of Management
McGill University
1001 Sherbrooke St.W.
Montreal, Québec H3A 1G5

Please note that a file will not be opened until an official application with the $15 fee is received. (McGill graduates or former McGill students are exempt from paying the $15 application fee).

b) Arrange to have *duplicate official* transcripts of undergraduate marks (and graduate, if any) forwarded directly by your university. Copies of transcripts received from applicants are not official and hence are not acceptable.

c) Arrange to have two letters of reference forwarded from current or former university professors. If more than three years have elapsed since leaving university, reference letters from employers should be requested.

d) Arrange to have the Graduate Management Admission Test score (written within the past five years) and the Test of English as a Foreign Language score (where applicable) forwarded directly from the Educational Testing Service.

Please note that *only if space allows will applications received after May 15 be considered.*

3.1.3 *Graduate Management Admission Test*

The Graduate Management Admission Test (GMAT) is administered by the Educational Testing Service. It is usually held on a Saturday in January, March, July and November at the locations and times shown in their Bulletin of Information for Candidates. It is recommended that applicants write the test in November and certainly no later than March. (It takes up to one month for the test scores to be forwarded).

For a copy of the Bulletin and registration forms, write to:

Educational Testing Service
Box 966
Princeton, New Jersey
USA 08540

Applications must be received by the Educational Testing Service at least six weeks prior to the test date. All arrangements for taking the test, including payment of the $32.00 fee, are made directly with the Educational Testing Service. However, in special/emergency situations, it may be possible for candidates to register for the GMAT at test centres onthe test day. WALK-IN REGISTRATION will be permitted only if sufficient space and test materials are available after all normally registered candidates have been admitted.

WALK-IN registrants must take a completed registration form to the test centre and pay a service fee of $15.00 in addition to the $32.00 fee.

Candidates in countries with currency restrictions should NOT attempt WALK-IN registration. They are advised to register directly with the Educational Testing Service well in advance.

All candidates registering with Princeton prior to the test date will receive an Admissions Ticket from ETS informing them of the location and time for writing the examination. All candidates must bring the Admission Ticket with them on the test date.

There is a learning book available to the students entitled "GMAT". This book may be obtained from the McGill University Bookstore, located on the ground floor of the Samuel Bronfman Building and students may wish to buy this book prior to writing the GMAT examination. It is also available from Princeton, at the address above.

3.1.4 Test of English as a Foreign Language

The purpose of this test is to determine the English proficiency of non-Canadian individuals whose native language is not English. The test is held on Saturdays in February, May, September and November. Applications must be received by the Educational Testing Service at least five weeks prior to the test date. The fee for this test is $12.50. For a copy of the Bulletin of Information, write directly to:

Educational Testing Service
Box 899
Princeton, New Jersey
USA 08540

(It takes at least one month to receive the test scores).

3.1.5 Language Policy

The language of instruction at McGill is English. However, students may write term papers and examinations in French, but reasonable competence in English is essential to succeed. A summer course, English 110-150, is offered and it is recommended that students who lack fluency in English take this summer course *before* embarking on a program of study at McGill. Information and application material may be obtained by writing directly to the Summer Session Office.

3.1.6 Language Requirements for Professionals

Québec law now requires that candidates seeking admission to provincially-recognized professional corporations* must possess a working knowledge of the French language, i.e. be able to communicate verbally and in writing in that language.

To demonstrate this capability, candidates will be required to pass an examination set by the Office de la langue française, unless they can show that three years of instruction in a French post-primary school have been completed. The professional corporation will require this proof of attendance or of successful completion of the Office examination.

This examination shall test the candidate's mastery of oral and written comprehension and expression in French. The contents may vary in accordance with the current terminological requirements of the profession or professional group.

Examinations take place as frequently as the demand indicates and may be attempted an unlimited number of times although a waiting period of 90 days is required between attempts.

The examination may be attempted by registered students during the two years prior to the date they can seek admission to the professional corporation. Arrangements for sitting the exam while still a student must be made through the faculty office. Priority will be given to those closest to graduation.

More information may be obtained from the Office de la langue française, Tour de la Bourse, (Place Victoria), 15e étage, Montréal, PQ, H4Z 1G8, Telephone 873-8361.

Students who need to acquire a functional level of proficiency in French may register in courses at either the French Language Centre, 3438 McTavish Street, Telephone 392-5727, for courses during the day, or at the Centre for Continuing Education, 772 Sherbrooke Street West, Telephone 392-4901, for courses in the evening.

Students already proficient in French but who wish to keep up practice may register in courses at the Department of French Language and Literature, 3460 McTavish Street, Telephone 392-4577, or at the Centre d'études canadiennes-françaises, 3475 Peel Street, Telephone 392-5200.

* *McGill degrees and diplomas currently give access to corporations regulating the activities of the following professional groups:*

Advocates
Agrologists
Architects
Chartered Accountants
Chartered Administrators
Chartered Appraisers
Chemists
Dentists
Dietitians
Engineers
Industrial Administrations Accountants
Industrial Relations Counsellors
Licensed General Accountants

Notaries
Nurses
Occupational Therapists
Physicians
Physiotherapists
Psychologists
Social Workers
Speech Therapists and Audiologists
Urbanists
Vocational Guidance Counsellors

3.1.7 Foreign Applicants

a) Any person, other than a Canadian citizen or permanent resident wishing to pursue studies in Québec, must be in possession of a "Certificat d'acceptation" (Certificate of Acceptance) issued by the Ministry of Immigration of Québec. This certificate is necessary to obtain a student authorization (issued by Canada Immigration).

In order to obtain the "Certificat d'acceptation" the student must submit the following documents to a Québec Immigration Representative. If there is no Québec Representative the student should contact the nearest Canadian Consulate or Embassy.

- a completed and signed application for a Certificate of acceptance;
- Certified copy of the letter of acceptance issued by an institution legally recognized.
- documents confirming available financial support:
- bank book or bank statement showing the funds available;
- affidavit of support from the person(s) offering their financial assistance as well as documents showing their ability to provide such assistance;
- return ticket for the student's transportation from and to the country of origin or amount of money necessary for that purpose;
- authorization to transfer funds from the foreign exchange control authorities in the country of origin (if applicable).

b) The University is unable to waive or defer the application fee or tuition fee requirement for foreign students. Applications received without the $15 application fee will not be processed.

c) There is no financial aid to bring foreign students to study in Canada. If a foreign applicant has been selected to receive an award, the financial aid is awarded only after registration in September. Therefore, foreign applicants must rely on their own financial resources to enter Canada.

The regulations governing foreign students working in Canada should be checked with the nearest Canadian Embassy or Consulate (visas must be checked also).

Foreign students wishing to work in Canada before applying to McGill, in order to finance their studies, must obtain permanent resident status by applying to the Canadian High Commission.

3.1.8 Procedure for Accepting Offer of Admission

Those students admitted to the M.B.A. program should forward a registration deposit fee of $100 payable to McGill University. Three passport size Black and White photos must also be supplied along with the deposit fee.

a) this fee is payable immediately upon receipt of the letter of acceptance and a place is reserved;

b) if this fee is not paid by the date specified in the letter of acceptance, no reservation will be made;

c) the fee is applied against tuition fees if you inform us by the specified date that you will be joining the program and if you register by the given date of registration;

d) the $100 fee is refundable provided you informus by the specified date that you do not intend to join the program for the forthcoming academic year;

e) but, the $100 fee is forfeited if you fail to inform us by the specified date that you will not be registering in the program.

All of the above is clearly outlined in the letter of acceptance.

3.1.9 Registration

a) All accepted candidates must register for their course programs on the days indicated in the Calendar of Dates provided in this Announcement. Registration is held in the Faculty of Management, Samuel Bronfman Building.

b) Candidates who fail to register during the specified registration period may do so later but will be charged a late registration fee by the University.

3.1.10 Photographs

All accepted students must submit three passport size Black and White photographs along with their $100 deposit fee. Students must supply these photographs before they will be permitted to register. Please make sure the photographs are professionally taken, suitable for use in employment promotional material.

3.1.11 Test for College Entrance Mathematics

All students entering the McGill M.B.A. program are required to demonstrate an adequate knowledge of college entrance mathematics. During Orientation Week, the week prior to the beginning of classes, students will be required to write a math test. If they do not perform satisfactorily, they will be required to take a *non-credit* remedial mathematics course - Survey of Basic Mathematics - during the first term. Students having previously completed this course, or an equivalent, will also be required to write and pass the math test. It is suggested that all applicants review **Schaum's College Algebra** text prior to writing the test. Further details regarding topics covered in this test will be forwarded at the time of acceptance into the program.

3.1.12 Orientation Week

Orientation Week for all new M.B.A. I students (day program) is held the week before classes begin in September. This week is a *mandatory* part of M.B.A. I. During this week, there is an opportunity to get acquainted with other students and to form initial study groups. There is also an opportunity to meet with professors and to have various facets of the program outlined and clarified.

The Business Game, a computerized Management game in which student teams compete against each other, begins during Orientation Week, and also continues throughout the year in the Economics courses.

There is also a social side to Orientation Week with a number of social get-togethers. In addition, there are tours of the Bronfman facilities and the university facilities.

All students are required to attend Orientation Week.

3.1.13 Identity Cards

Students are advised both prior to and at the time of registration of the dates and times on which pictures will be taken for I.D. cards. Pictures are usually taken at David Thompson House, 3650 McTavish Street, at the end of September.

3.2 ADMISSION TO THE SECOND YEAR OF THE M.B.A. PROGRAM

Students may qualify for entry into the full-time M.B.A. II program as follows:

a) Successful completion of the first-year of the McGill Full-time M.B.A. Program.

b) Successful completion of M.B.A. I in the McGill Part-time (Night) Program.

c) Successful completion of the McGill Diploma in Management Program (refer to Section 13).

Note that when switching programs, the entrance requirements of the program into which you are switching now apply. For example, successful completion of the McGill Diploma in Management does not guarantee entry into either M.B.A. II Part-time or Full-time.

d) Transfer after completion of some portion of M.B.A. I at an other university. In this case, applicants should state the reasons for the transfer and forward detailed course descriptions, texts used, a copy of their GMAT score and arrange to have their university send tow official transcripts of their undergraduate and graduate marks to date before a decision can be made as to their acceptability.

Please note that M.B.A. programs very often differ considerably from university to university; credit may be granted for a maximum of 5 half courses taken at another university.

4 THE McGILL M.B.A. FULL-TIME PROGRAM

The McGill M.B.A. (Full-time) program is an intensive two year program leading to the degree of Master of Business Administration. Each of the two years of the program is described below.

Admissions procedures are outlined in Section 4, while M.B.A. Concentrations and course descriptions are provided in Sections 5 and 6.

4.1 THE FIRST YEAR (M.B.A. I)

The first year of the McGill MBA provides a broad overview of management. The ten foundation courses provides the "need to know" material of a sound management education:

Accounting-A Management Approach
Organizational Behaviour
Management Information Systems
Finance I
Marketing Management I
Introduction to Modelling Methods
Basic Management Statistics
Economic Analysis of Business
Economic Environment of the Firm
Introduction to International Business
OR Industrial Relations

In addition, two *non-credit* courses are also included in the M.B.A. I year:

Survey of Basic Mathematics
Business Communications

4.2 THE SECOND YEAR (M.B.A. II)

The second year of the McGill M.B.A. focuses on a particular area of interest. M.B.A. II is comprised of three components:

1. Two required courses
   -Management Policy
   -Skill Development
2. The area of concentration – usually five courses
3. Three free electives

A research paper is an optional part of M.B.A. II and is one further way to develop an area of expertise. The research paper counts as two half courses in M.B.A. II and *may* count as one, possibly two courses toward the concentration.

Note that it is not necessary to select the area of concentration until completion of the first year.

5 THE M.B.A. I YEAR: COURSE DESCRIPTIONS

The M.B.A. I year consists of ten courses, of which the first nine are the core or mandatory courses. The tenth course is a choice between *Introduction to International Business* and *Industrial Relations.*

In addition, two non-credit courses are required, including *Business Communications* and *Survey of Basic Mathematics* (refer to Section 4).

Course descriptions are outlined below.

277-674 SURVEY OF BASIC MATHEMATICS. This course is an intensive review of basic mathematics including algebra, graphs, functions and logarithms. It introduces you to calculus including limits, functions of one variable, differentiation, integration and applications; and to matrix algebra including determinants and solutions of simultaneous linear equations *(non-credit).*

280-099 BUSINESS COMMUNICATIONS. This course gives both theory and practice in applying the techniques for effective business communication. It gives extensive practice in organizing ideas, devising outlines and using appropriate formats for attaining one's purpose through letters, memoranda and reports. It stresses the use of clear, correct and convincing language *(non-credit).*

271-611 ACCOUNTING – A MANAGEMENT APPROACH. Role of accounting as both an external and internal information system with emphasis on internal uses. Basic concepts covered include: measurement of income, statement analysis, price level changes and aspects of business combinations, cost and control concepts, costing systems, budgeting, differential cost analysis and measurement of performance.

272-621 ORGANIZATIONAL BEHAVIOUR. Concerned with the study, description and explanation of human behaviour in organizations. Primary focus is the behaviour of people in organizations, the theory and methods appropriate to its study and the adaptation of knowledge in ways useful for the manager.

273-631 MANAGEMENT INFORMATION SYSTEMS. Introduces the applications of electronic computers in business and industry. Topics include: concepts of the logical organization of computers; characteristics of procedure-oriented languages and of executive systems; current trends in computer systems (time-sharing and multi programming); and current computer applications and future potentialities with emphasis on business data processing. Instruction in Fortran – introduction to Cobol.

274-641 FINANCE I. *Pre-requisite: Accounting 271-611.* Introduction to financial management and the role of finance within the firm and the economy. Topics include: legal forms, taxes, financing instruments, capital markets (firm's institutional framework), pricing of financial instruments, simple models of capital market equilibrium, firm's financial structure, cost of capital, dividend policy, investment criteria for new capital spending proposals andworking capital management (analytics of finance).

275-651 MARKETING MANAGEMENT I. Problems faced by marketing executives and the role of marketing in the corporation and society. Students analyze buyer decision processes and the economic, social, political, technological and competitive environment and convert their analysis into marketing strategy. Topics include: measuring marketing opportunities and customer desires, product policy, pricing decisions, distribution, advertising and sales force management.

277-612 INTRODUCTION TO MODELLING METHODS IN MANAGEMENT. *Pre-requisite Basic Management Statistics 277-613.* Topics include: introduction to decision analysis, linear programming, simulation and mathematical models of inventory and waiting line systems. Stresses problem formulation and solution implementation.

277-613 BASIC MANAGEMENT STATISTICS. *Prerequisite: Survey of Basic Mathematics 277-674.* Topics include: descriptive statistics, common probability distributions (binomial, Poisson, normal), sampling procedures and distributions, estimation, hypothesis testing, distribution-free procedures (tests of goodness of fit and independence), simple and multiple regression, correlation, one-way analysis of variance, time series analysis, Bayesian analysis and index numbers. The use of computer programs in statistical analysis is stressed.

278-686 INTRODUCTION TO INTERNATIONAL BUSINESS. An introduction to the expanded world of the international businessman. Economic foundations of international trade and investment. The international trade, finance and regulatory frameworks. Relations between international companies and nation-states, including costs and benefits of foreign investment and alternative controls and responses. Effects of local environmental characteristics (educational, sociological, economic, legal, political) on the operations of multi-national enterprises.

278-687 INDUSTRIAL RELATIONS. Unions, managementand the public interest. Designed to acquaint students with the problems of industrial relations; union impact on employees and management; managerial attitudes toward unions and collective bargaining in a mixed enterprise society; evolving public policy with regard to labour relations in the public and private sectors.

279-691 ECONOMIC ENVIRONMENT OF THE FIRM. Examines main macro-economic mechanisms: income determination, multiplier theory, fiscal policy, level of investment, demand for money, rate of interest, Canadian banking system, deposit creation, general equilibrium of product and money markets, dynamics of investment, employment sector, price level, inflation, balance of payments, international trade and methods of dealing with balance-of-payments disequilibria.

279-692 ECONOMICS ANALYSIS OF BUSINESS. Demonstration of the applications of economic theory and methodology in solving business problems. Topics include: demand, production, cost analysis, pricing, growth, concentration, profitability and resource allocation of the firm. Marketing and sales forecasting techniques are also briefly introduced.

6 THE M.B.A. II YEAR: CONCENTRATIONS AND COURSE DESCRIPTIONS

6.1 M.B.A. II CONCENTRATIONS

The M.B.A. II Concentrations are very much geared to the needs and demands of the employment market. They have been designed with considerable thought and attention to provide meaningful and useful packages of courses which will be an advantage upon graduation.

A Concentration consists of five courses within an area (except certain joint or two-area concentrations, where more courses are required) which, along with the first year course, gives six courses and a decided competency in that particular field.

Concentrations available in the MBA II Full-time program include:

Management Science
Management Information Systems
Accounting
Accounting and Finance
Finance
Human Resource Management
Institutional Finance and Real Estate
International Business/Finance
International Business/Management
International Business/Marketing
Marketing
Small Business
Managerial Economics
Management Policy
Industrial Relations
Public Sector Management
Regulated Industry Management

The details of the Concentrations are described below, while course descriptions are provided in the following section.

6.2 DESCRIPTIONS OF CONCENTRATIONS

MANAGEMENT SCIENCE

Five from the following:

277-632 Sample Survey Methods and Analysis
277-633 Applied Decision Analysis
277-634 Econometric Methods in Management
277-671 Statistics for Business Decisions
277-675 Applied Time Series Analysis
277-676 Applied Multivariate Data Analysis
277-678 Simulation of Management Systems
277-679 Applied Optimization I
277-680 Applied Optimization II

total of 5 courses

MANAGEMENT INFORMATION SYSTEMS

NOTE: This concentration may not be taken on its own but must be combined with another area, thus forming a double concentration.

Four required courses:

273-635 Advanced Topics in Systems Technology (Telecommunications)
273-636 Information Systems Administration
273-637 Information System Design
273-638 Advanced Topics Data Base

ACCOUNTING CONCENTRATION

Choose 3 from Category A or B

Category A

271-616 Management Accounting: Decision
271-617 Management Accounting: Control
271-631 Seminar in Management Accounting
or
271-635 Accounting Workshop

Category B

271-618 Financial Reporting Structure and Analysis
271-619 Financial Reporting Valuation
271-630 Seminar in Financial Accounting
or
271-635 Accounting Workshop

Choose 2 courses from:

271-614 Taxation for Management
271-615 International Accounting
271-620 Auditing Concepts and Techniques
271-621 Management Information Analysis

ACCOUNTING AND FINANCE

Required:

274-650 Finance II

and two from the following Finance courses:

274-644 Canadian Financial Institutions
274-645 Money and Capital Markets
274-646 Investments and Portfolio Management
274-647 Advanced Finance Seminar
274-648 Applied Corporate Finance
278-693 International Finance I
278-694 International Finance II

and three from the following Accounting courses:

271-614 Taxation for Management
271-615 International Accounting
271-616 Management Accounting: Decision
271-617 Management Accounting: Control
271-618 Financial Reporting: Structure and Analysis
271-619 Financial Reporting: Valuation
271-620 Auditing Concepts and Techniques
271-621 Management Information Analysis

total of 6 courses

FINANCE

Required

274-650 Finance II

and four from the following:

274-642 Mortgage Finance
274-643 Real Estate Investment
274-644 Canadian Financial Institutions
274-645 Money and Capital Markets
274-646 Investments and Portfolio Management
274-647 Advanced Finance Seminar
274-648 Applied Corporate Finance
278-693 International Finance I
278-694 International Finance II

total of 5 courses

For non-Finance concentrators,

274-652 Managerial Finance

will be offered, but this course will not be counted jointly with Finance II as credit for the MBA degree. It will not be considered a prerequisite for Applied Corporate Finance, Advanced Finance Seminar or Investments and Portfolio Management.

INSTITUTIONAL FINANCE & REAL ESTATE

Required:

274-640 Urban Land Economics
274-642 Mortgage Finance
274-643 Real Estate Investment
274-644 Canadian Financial Institutions
and
274-645 Money & Capital Markets
274-650 Finance II
or
274-652 Managerial Finance
278-691 Business Law I

Highly recommended:

271-614 Taxation Seminar
275-658 Marketing Research I
277-675 Applied Time Series
277-676 Applied Multivariate Data Analysis
278-586 Land Law
280-610 Research Paper
303-540 Urban Transportation Planning

total of 6 courses

HUMAN RESOURCE MANAGEMENT

Required:

272-624 Personnel Administration
272-625 Strategies of Organizational Development
272-627 Salary Administration

and two from the following:

278-685 Cross Cultural Management
272-522 Quality of Working Life
272-628 Creativity and Adaptive Organizations
278-684 Managerial Decision Marking: A Behavioral View
278-687 Industrial Relations**
279-501 Human Resources in Industrial Society

total of 5 courses

**If Industrial Relations 278-687 was taken in the M.B.A. I program, it cannot be counted as one of the electives in the Concentration – one additional elective must be taken in its place.

INTERNATIONAL BUSINESS/FINANCE

Pre-requisites

278-686 Introduction to International Business

Required:
274-650 Finance II
278-693 International Finance I
278-694 International Finance II
278-683 International Business Policy

and one from the following:

274-644 Canadian Financial Institutions
274-646 Investments and Portfolio Management
274-648 Applied Corporate Finance

total of 5 courses

INTERNATIONAL BUSINESS/MANAGEMENT

Pre-requisite:

278-686 Introduction to International Business

Required:

278-683 International Business Policy

and four from the following:

275-660 International Marketing Management
278-675 Canada–U.S. Business Relations
278-674 International Business Law
278-685 Cross Cultural Management
278-676 International Financial Management
278-697 Seminar in International Business

total of 5 courses

INTERNATIONAL BUSINESS/MARKETING

Pre-requisites:

275-651 Marketing Management I
278-686 Introduction to International Business

Required:

275-652 Marketing Management II
275-658 Marketing Research I
275-660 International Marketing Management
278-683 International Business Policy

and one from the following:

275-655 Marketing Planning
275-659 Industrial Marketing

and one from the following:

278-675 Canada–U.S. Business Relations
278-674 International Business Law
278-676 International Financial Management

total of 6 courses

MANAGERIAL ECONOMICS

A minimum of three from:
276-565 Business in Society I
279-591 Future Studies: Corporate Planning
279-696 Industrial Organization: The Competitive, Regulatory and Legal Environment of the Firm
279-697 Economic Analysis for Strategy Formulation

and additional courses, to a total of 5, from:

274-645 Money & Capital Markets
276-567 Business in Society II
276-668 Consulting Seminar
277-634 Econometric Methods in Management
278-675 Canada–U.S. Business Relations

Other electives with the approval of the Area Coordinator. Students will be strongly advised to include Marketing Management II and Managerial Finance, or their equivalent, among the remaining free elective courses in the balance of their program.

total of 5 courses

MARKETING

Required:

275-652 Marketing Management II
275-658 Marketing Research I

and three from the following:

275-557 Marketing Research II
275-654 Marketing Communications
275-655 Marketing Planning
275-657 Consumer Behaviour
275-659 Industrial Marketing
275-660 International Marketing Management

total of 5 courses

SMALL BUSINESS

Required:

274-652 Managerial Finance
276-664 Managing Small Business
278-691 Business Law I

and two from the following:

271-614 Taxation Seminar
275-652 Marketing Management II
278-687 Industrial Relations**
279-692 Business Law II

total of 5 courses

***If Industrial Relations 278-687 was taken in the MBA I program, it cannot be counted as one of the electives in the Concentrations – one additional elective must be taken in its place.*

MANAGEMENT POLICY

Required:

276-561 Decision Making Process in Public and Private Enterprise

and four from the following:

272-625 Strategies of Organization Development
275-655 Marketing Planning
276-562 Seminar in Organizational Strategy
275-565 Business in Society I
278-681 Management in the Public Sector I
278-683 International Business Policy
278-690 Topics in Management
278-687 Industrial Relations**
279-591 Future Studies: Corporate Planning

total of 5 courses

***If Industrial Relations 278-687 was taken in the MBA I program, it cannot be counted as one of the electives in the Concentration – one additional elective must be taken in its place.*

INDUSTRIAL RELATIONS

Pre-requisite:

278-687 Industrial Relations

Required:

278-695 Collective Bargaining in Theory and Practice
278-696 The Role of Government in Labour Relations
279-501 Human Resources in Industrial Society

and two from the following:

279-500 Labor and Industrial Relations Theory
278-681 Management in the Public Sector
276-561 Decision-Making Process in Public and Private Enterprise
272-627 Salary Administration
272-624 Personnel Administration
277-671 Statistics for Business Decisions
278-690 Topics in Management (guided research on an IR topic)

PUBLIC SECTOR MANAGEMENT

Required:

276-561 Decision Making Processes in Public and Private Enterprise
278-681 Management in the Public Sector I
278-682 Management in the Public Sector II

and

278-581 Health Care Organization
278-582 Hospital Organization and Management

or

two from the following:

276-663 Inter disciplinary Seminar in Regulated Industry
278-675 Canada–U.S. Business Relations
279-501 Human Resources in Industrial Society
279-591 Future Studies: Corporate Planning
160-469 The Politics of Regulation

total of 5 courses

Up to two courses, offered by other Faculties, may be substituted for the above with prior approval of the Area Co-ordinator.

REGULATED INDUSTRY MANAGEMENT

Required:

276-663 Interdisciplinary Seminar in Regulated Industries*
276-670 Regulated Industry Management
154-637 Industrial Organization and Regulation
279-696 Industrial Organization: The Competitive, Regulatory and Legal Environment of the firm

and one from the following:

276-561 Decision Making Processes in Public and Private Enterprise
278-681 Management in the Public Sector I
278-682 Management in the Public Sector II
279-697 Economic Analysis for Strategy Formulation
154-737 Industrial Organizationand Regulation Seminar

total of 5 courses

**a three-credit seminar which meets approximately every two weeks during both semesters.*

GENERAL MANAGEMENT STREAM

Under special circumstances, students may design their own packages of courses in the M.B.A. II Full-time program, with the help and approval of the MBA Program Director. Such circumstances normally pertain to mature students with considerable business experience.

DOUBLE CONCENTRATIONS

Students wishing to do a double concentration, one which is not outlined above, must take four courses in each area (i.e. all eight electives). These courses will be designated by the Area Co-ordinators involved but will probably include the mandatory and central courses.

6.3 M.B.A. II COURSE DESCRIPTIONS

271-614 TAXATION FOR MANAGEMENT. Impact of Federal income taxation on business and individual investor decisions in selected areas. The emphasis is on tax planning and on why various provisions of the Act have been adopted. The course covers the taxation of both individual and corporations.

271-615 INTERNATIONAL ACCOUNTING. International dimensions of accounting and the use of accounting information for decision making in a multinational environment. A comparative study is made of the development and current state of the financial reporting practices in various socio-economic environments. Emphasis accounting and financial problems of multinational corporations: currency translation, international taxation, transfer pricing and control of foreign subsidiaries. Other topics include accounting for inflation and current issues in international accounting.

271-616 MANAGEMENT ACCOUNTING: DECISION. The provision of data/information to management for decision purposes. A range of production and investment decisions is examined, with emphasis on specifying the decision-relevant data. An advanced treatment of capital budgeting and resource allocation decisions is provided.

271-617 MANAGEMENT ACCOUNTING: CONTROL. The problems of planning and control in business organizations. Focus on external and internal control and data/information flows. Topics include: performance measurement of segments and functions of the firm, planning systems and budgetary controls, cost analysis and reporting with an emphasis on the behavioural and systems effects of management planning and control.

271-618 FINANCIAL REPORTING: STRUCTURE AND ANALYSIS. An indepth analysis of corporate financial reporting principles and practices, with emphasis on developing the abilities of the student to discriminate between the form and substance of corporate financial reports. Financial management and analysis of the debt/equity structure. Accounting and valuing debt, options, rights, pensions, dividends and the various forms of equity.

271-619 FINANCIAL REPORTING: VALUATION. The financial reporting aspects of accounting in an analytical context. Alternative approaches to measuring income, the current state of the art and theory are examined. Valuation difficulties including allocations of asset cost for fixed and operating assets are considered. Alternative approaches to specialized problem areas involving assets such as leases and consolidations are addressed.

271-620 AUDITING CONCEPTS AND TECHNIQUES. Concepts and techniques employed by auditors. Role and responsibilities of auditors with emphasis on internal control and its impact on the audit. The audit as a decision-making process through the study of types of audit evidence, techniques for collection, evaluation and reporting of the results.

271-621 MANAGEMENT INFORMATION ANALYSIS. Theoretical framework for the quantitative evaluation of accounting and other information alternatives, with particular reference to the use of the information by management. Selected topics include: information theory, an introduction to information economics, static and dynamic information evaluation models, model simplifications, and implementation problems.

271-630 SEMINAR IN FINANCIAL ACCOUNTING. Pre-requisite: Financial Reporting: Structure and Analysis 271-618 or Financial Reporting: Valuation 271-619. An opportunity for an exchange of ideas and sharing practical working experience in the area of financial accounting. Focus on topics of interest to the accounting profession including the objectives of financial statements, current value accounting, contingencies, usefulness of accounting information and the measurement of expense and revenues and their allocation among periods and functions. Empirical research and theoretical structures.

271-631 SEMINAR IN MANAGEMENT ACCOUNTING. Pre-requisite: Accounting 271-616 or 271-617. Current topics in management accounting. The objectives of this course are two fold: 1) to examine behavioural aspects of accounting information systems, and 2) to explore some new concepts and techniques in designing accounting systems.

271-635 ACCOUNTING WORKSHOP. Pre-requisite: Completion of management of Financial reporting concentration options. Specialized topics in advanced areas of the program. Subject matter will depend upon the interests and availability of Faculty and students. Opportunity to integrate research interests of faculty and visitors for the benefit of advanced students.

272-521 LEADERSHIP STYLES AND ORGANIZATIONAL STRESS. Influence of personality, situational and cultural factors on strategic decision making. The role of power and political behaviour in organizational life is reviewed. To analyze these complex inter-relationships, a psychodynamic model of organizational behaviour is emphasized. Topics include: managerial style, superior-subordinate relationships, organizational stress, entrepreneurial behaviour patterns, power and politics in decision making.

272-522 QUALITY OF WORKING LIFE. An introduction to the basic concepts and present practices of the social technical systems approach to job design and job re-design. After completion of the course, the student is expected to be sensitive to the range of social, organizational and psychological issues raised by job design and quality of working life programs.

272-624 PERSONNEL ADMINISTRATION. Attempts to acquaint students with the functions of a personnel department. The particular topics chosen for discussion represent a broad range of the most current functions that offices perform.

272-625 STRATEGIES OF ORGANIZATIONAL DEVELOPMENT. A process of planned change in an organization's culture; a long-range effort to improve the organization's problem-solving and renewal processes, utilizing the applied behavioural sciences and experience-based learning. Examines theory, strategies and techniques of organizational diagnosis and intervention.

272-627 SALARY ADMINISTRATION. Total compensation systems in business and service organizations. Emphasis on understanding various compensation theories and their relation to compensation policies within organizations. Topics include: nature of financial motivation compensation theories, job design and job analysis, compensation practices, designing a compensation package, pay and organizational effectiveness.

272-628 CREATIVITY AND ADAPTIVE ORGANIZATIONS. Deals with what we know about creativity, the process of innovation, the management of creativity and the implications of innovation for modern management. Accent is on studies of actual innovations, of creative individuals and organizations, interviews with creative managers, case and field studies.

272-629D A PSYCHOANALYTIC APPROACH TO MANAGEMENT. Prerequisite: Permission of the Instructor. Introduction to the diagnostic study of organizations, particularly as it relates to consulting practice. Attention will be given to psychodynamic concepts of personality to help understand the relationships between personality and organization. Organizational malfunctioning as it relates to the experiences and conflicts of the individual in a work setting will be studied.

273-533 INFORMATION SYSTEMS – AUDIT & SECURITY. The course considers, at an advanced level, problems and methods of establishing effective controls of computer systems, evaluation of controls, and computer aids to evaluation and auditing.

273-635 ADVANCED TOPICS IN SYSTEMS TECHNOLOGY (TELECOMMUNICATIONS). This year: data communications and computer/communication systems. The focus will be applications and user oriented. After a survey of concepts and terminology the course will consider applications such as distributed computing, electronic and office automation. Social and political impacts of the development in this field will also be considered.

273-636 INFORMATION SYSTEMS ADMINISTRATION. ISA covers the problems of managing the information systems resource. A combination of case studies and lectures is used to illustrate the problems of computer acquisition, in-house or via service bureau, of information systems development, of minicomputer proliferation, of organizational development and of other areas of importance to information systems managers.

273-637 INFORMATION SYSTEMS DESIGN. Introduces basic data and information concepts and their practical application in developing information systems. Topics include: systems approach and analysis; information from data, economics of information, methods of information systems development; data base, data structure, association and manipulation of data; systems development methodology (evaluation, justification design and implementation).

273-638 ADVANCED TOPICS DATA BASE. Prerequisite: Computers 273-631. Conducted in seminar/workshop style. Focuses on the application of Data Base and Management Systems.

274-640 URBAN LAND ECONOMICS. Pre-requisite: Finance 274-641. The economic forces that shape urban areas and cause them to grow and decline. Topics include the growth of urbanization, economic base, theories of land rent, as well as studies of demand and supply of new and existing housing, shopping centre location and property tax incidence.

274-642 MORTGAGE FINANCE. Pre-requisite: Finance I 274-641. The micro aspects of mortgages, i .e. legal aspects, construction lending and long term mortgages together with the mathematics of real estate. At the macro level, institutional behaviour, market cycles and government policy are analyzed.

274-643 REAL ESTATE INVESTMENT. Pre-requisite: Mortgage Finance 274-642 or permission from instructor. Investment theory and behaviour in real estate are related to regulation. The student examines financial techniques, ownership, regulation, tax rules and appraisal procedures in analyzing case studies in real estate. A computer model is used to simulate risk return strategies.

274-644 CANADIAN FINANCIAL INSTITUTIONS. Pre-requisite: Finance II 274-650. Two interrelated subject areas are explored: the micromanagement of financial institutions using the tools of portfolio and financial intermediation-theory; and the macro, public policy implications of institutions, their forms and legal framework.

274-645 MONEY AND CAPITAL MARKETS. Prerequisite: 279-691 & 279-692 or equivalent. Examines the demand for and supply of money and other financial instruments by and to banks and near banks. This is done with simple analytical models integrating the Canadian institutional aspects. The role of the banking sector in the money creation process is stressed as well as international aspects of monetary policy.

274-646 INVESTMENTS AND PORTFOLIO MANAGEMENT. Pre-requisite: Finance II 274-650. The prime objective is to provide the student with a rational framework for investment. The portfolio and capital market theory of Finance II 274-650 is extended and the empirical evidence supporting these and competing hypotheses is investigated for both individual securities and portfolios.

274-647 ADVANCED FINANCE SEMINAR. Prerequisite: Finance II 274-650. Selected topics will be discussed by Faculty members, invited guest speakers, and the students. Each student is required to select a topic for study and prepare a written report for presentation.

274-648 APPLIED CORPORATE FINANCE. Prerequisite: Finance II 274-650. Concepts and techniques developed in earlier courses are extended and/or applied to problems faced by managers in Corporate Finance. Such problems include: working capital management, capital budgeting, capital structure, dividend policy, cost of capital and mergers and acquisitions. Stresses the application of theory and techniques and extensive use is made of case studies.

274-650 FINANCE II. An introduction to the modern theory of finance: capital budgeting, corporate finance (including cost of capital, dividend policy and capital structure) and portfolio theory. To investigate valuation and decision making under uncertainty and to apply these to specific financial problems.

274-652 MANAGERIAL FINANCE (for non-Finance Concentration). Designed as a second course in Finance for students not specializing in Finance. Topics include: short and long term asset and liability management, risk and diversification, and the nature of capital markets. The course format will be a mixture of cases, lectures, projects and discussions..

275-652 MARKETING MANAGEMENT II. Its orientation is one of decision making and problem solving. Focuses on the decision areas of marketing management. Emphasizes the application of marketing theory, concepts and methods to the solution of real life marketing problems.

275-654 MARKETING COMMUNICATIONS. Transactions between buyers and sellers. Advertising will be of central concern. Further emphasis on the connection between market research, product and techniques of product positioning; total communication strategies; "speciality" advertising and source communication tactics; techniques of carry-over effects of consumer oriented advertising in the industrial / institutional goods context.

275-655 MARKETING PLANNING. Focuses on the design and implementation of marketing plans. Emphasizes management decision-making; approaches and techniques for formulating marketing objectives; identifying alternate strategies; preparing the marketing plan; implementing and controlling the plan.

275-656 MANAGEMENT SCIENCE IN MARKETING. Intensive investigation of actual and potential management science applications to marketing problems such as advertising, pricing, personal selling and product planning. Other topics include: the interaction among marketing variables; the problems of implementation of the management science approach in marketing organizations.

275-657 CONSUMER BEHAVIOUR. A variety of research approaches focusing upon the behaviour of the consumer in the market place. Intended to sensitize the students to human behaviour in general so they may carry their understanding of basic processes over to the more specific area of the consumer.

275-658 MARKETING RESEARCH I. Permission of instructor. The basic problems of searching for additional information for better marketing decisions. Designed from the marketing manager's point of view. Placed in a cost-benefit perspective. All steps of the research process (problem definition, data collection methods, sample design, etc.) are covered.

275-557 MARKETING RESEARCH II. Pre-requisite: Marketing 275-658. Looks at marketing research at a more advanced level (and from a more technical point of view) than 275-658. Emphasis on research methodology, scaling procedures and multivariate techniques of data analysis.

275-659 INDUSTRIAL MARKETING: Pre-requisite: Marketing 275-652. Focus on formulating policy and implementing decisions for marketing to organizations. Essentially practice and problem oriented. Topics include: concepts of market selection and product planning; pricing; distribution; buyer-seller relations; industrial buyer behaviour.

275-695 THEORY AND SCIENCE IN MARKETING. Sources and development of theory in marketing and the potential and actual application of scientific methodology in marketing. Based on the literature in the development of marketing theory as well as other sources of marketing science especially economics, psychology and sociology.

276-561 DECISION-MAKING PROCESS IN PUBLIC AND PRIVATE ENTERPRISE. The increasing role of public enterprises raises new problems and complexities for government and business. Compares their decision-making and administrative processes, and the role of the chief executive officer; emphasis on the role of setting up objectives, defining strategy and implementation.

276-562 SEMINAR IN ORGANIZATIONAL STRATEGY. Significance of policy and strategy to top management and their organizations. Understanding of how environments (external and internal) affect the functioning of an organization; opportunities and threats and how organizations set objectives; and formulation and implemention of effective policies and strategies. Emphasis will be on the role of the general manager in shaping and leading an organization.

276-565 BUSINESS IN SOCIETY I. Pre-requisite: Economics 279-692, 279-691. Underlying ideals and beliefs of the traditional capitalist system; management styles and corporate policies and responsibilities that are compatible with the capitalist ideal; expressed criticisms and concerns about the existing system; traditional approaches, such as anti-trust laws, to making the system more effective.

276-567 BUSINESS IN SOCIETY II. Pre-requisite: Business in Society I 276-565. The emerging capitalist ideology; management styles and corporate policies and responsibilities that may be encompassed within the general framework of business morality (perceived as behaviour extending beyond the law, reflecting a level of aspiration rather than a level of duty); new approaches to making business more "responsive" to the needs of society.

276-631D MANAGEMENT POLICY. Use of 3 complementary approaches: theoretical topics in the field of Management Policy and Organizational Theory, case discussions, and a field project. Topics such as organizational structure, organizational power, managerial work and strategy formation are discussed.

276-664 MANAGING THE SMALL BUSINESS. Focusing on the strategies and operating policies of small business enterprises, the course is designed for individuals who are considering entrepreneurial careers either as owners or managers. Provides a practical approach to the many problems likely to be encountered in the evolving life cycle of the small business.

276-666 CYBERNETICS IN MANAGEMENT. Focus on the engineering aspects and logistics of the management process. The application of cybernetics to corporate planning is dealt with. Emphasis will be placed on the process, and plan documents will be viewed as printouts of this process. Students will prepare short research papers on the actual planning practices of selected organizations.

276-670 REGULATED INDUSTRY MANAGEMENT. Objectives of regulation and methods employed by regulatory agencies. Topics will include the rationale for regulating an industry, the framework of general rate regulation, estimation of costs including required return on capital employed, and the effects of regulation. Actual cases will illustrate the principles and issues in regulation.

277-632 SAMPLE SURVEY METHODS AND ANALYSIS. Pre-requisite: Statistics 277-613 or 280-272 or equivalent. The design of surveys and analysis of survey data with emphasis on management applications. Topics include: design of sample surveys, sampling procedures including simple random, stratified, systematic and unequal probability sampling; multistage and cluster sampling; judgement sampling; ratio and regression estimation; procedures for non-response and non-sampling errors; introduction to experimental methods and experimental design.

277-633 APPLIED DECISION ANALYSIS. Pre-requisite: Statistics 277-613 and Modelling Methods 277-612 or equivalent. Covers the traditional decision model; utility theory including the expected utility axioms, multiattribute utility functions and preference assessment methods; the role of information in decision making including Bayesian analysis, valuation of information and probability assessment methods; group decision making including group preference functions and game theory; case applications of decision analysis to various management areas.

277-634 ECONOMETRIC METHODS IN MANAGEMENT. Pre-requisite: Statistics 277-613 or equivalent. Covers the traditional topics of econometrics relevant to management; general linear model, ulticollinearity and dummy variables; generalized least-squares including heteroscedasticity and autocorrelation; stochastic regressors. Instrumental variables and lagged variables; tobit and probit models of qualitative choice. The course is designed to assist students to learn basic concepts and methods, to understand why and how major procedures are applied, and to apply the knowledge obtained to a real-world problem (term paper) with the aid of computer programs.

277-671 STATISTICS FOR BUSINESS DECISIONS. Pre-requisite: Statistics 277-613. Simple, multiple, polynomial and stepwise regression. Matrix approach to regression. One-way analysis of variance, two-way analysis of variance with and without replication. Analysis of covariance. Multiple comparison procedures. Nonparametric statistical methods. One- and multi-sample problems. Tests of randomness. Homework exercises use statistical computer programs.

277-675 APPLIED TIME SERIES ANALYSIS FOR MANAGERIAL FORECASTING. Pre-requisite: Statistics 277-613 or equivalent. Management applications of time series analysis. Starting with ratio-to-moving average methods, deals successively with Census 2 and exponential smoothing methods, the methodology introduced by Box and Jenkins, spectral analysis, and time series regression techniques. Applications of the methodology are emphasized. Students are expected to prepare and present case studies.

277-676 APPLIED MULTIVARIATE DATA ANALYSIS. Pre-requisite: Statistics 277-613 or equivalent. Management applications of multivariate analysis. Students are expected to prepare and present case studies. Topics include: advanced topics in regression, factor analysis, discriminant analysis, classification procedures, multidimensional scaling, cluster analysis.

277-678 SIMULATION OF MANAGEMENT SYSTEMS. Pre-requisite: Statistics 277-613 and Modelling Methods 277-612 or equivalent. Building simulation models of management systems. Stresses the construction of useful models, the design of simulation experiments and the analysis and implementation of results. Students are expected to design a complete simulation of a real problem using a standard simulation language.

277-679 APPLIED OPTIMIZATION I. Pre-requisite: Modelling Methods 277-612 or equivalent. Topics include: linear programming and extensions to decision problems involving quadratic and non-linear models, network analysis and models of discrete decision problems. Stresses the solution of complex management problems using efficient optimization tools of operations research. Students will apply the techniques to real management cases.

277-680 APPLIED OPTIMIZATION II. Pre-requisite: Applied Optimization I 277-679. Application of dynamic programming to a variety of decision problems, both in deterministic and probabilistic environments. Topics include: dynamic inventory scheduling with uncertain demand, unbounded horizon problems, problems in replacement and maintenance.

278-581 HEALTH CARE ORGANIZATION. Overview and study of the Québec health care system, within the Canadian context. Brief historical overview and analysis of its major elements: Québec Ministry of Social Affairs, Regional Health Councils, (CRSSS), Social Service Centres, Hospitals (different types), etc. Several critical issues are then examined: planning health care needs and resources, financing health care, labor relations, patterns of power and assessing quality of care.

278-582 HOSPITAL ORGANIZATION AND MANAGEMENT. Course is divided into (1) how hospitals define their goals and priorities, (2) what are the basic elements and functioning of administrative and medical organization structure, (3) what makes the management of hospitals particularly complex, (4) how to assess overall as well as departmental performance. Course material, approach and assignment are strongly practice-oriented.

278-586 LAND LAW. Pre-requisite: Business Law I 278-691. Differences between moveable and immoveable property as well as detailing interests in land in civil law such as ownership, real servitudes and emphyteutic leases. The land registry system is analyzed by means of a case study. Finally, real estate transactions are examined after the student studies form and content of leases and hypothecs.

278-675 CANADIAN – U.S. BUSINESS RELATIONS. Pre-requisite: Introduction to International Business 278-686 or permission of instructor. Analysis, based on theory and practice, of corporate strategies in the Canada – United States context. Emphasis upon public policy impact on corporate decision making and implications of alternative public policy options. Bilateral experience by major industrial sectors examined and compared with global corporate strategies. Survey of theoretical and empirical literature combined with industrial histories and policy case studies.

278-674 INTERNATIONAL BUSINESS LAW. Prerequisite: International Business 278-686 or permission of instructor. Introduction to the law regulating international business. Reviews the origins of the world's three main legal systems and procedure of civil trials before their courts. Explains the main business organizations used in the world trade. Forms and documentation of various types of foreign trade contracts. Conflict avoidance, arbitration and international transaction litigation. Specific analysis of trade terms, international commercial transactions (export sales, marketing through distributors, licensing) and international conventions (tax treaties, industrial and intellectual property, GATT, etc.).

278-676 – INTERNATIONAL FINANCIAL MANAGEMENT. (For non-finance concentrators). Processes and institutions of the contemporary international financial system, and their relevance to the management of international business operations.

278-681 MANAGEMENT IN THE PUBLIC SECTOR I. Focus upon the actors, institutions, and processes involved in decision-making, resource allocation, personnel management, administration, evaluation of efficiency and effectiveness, policy development, and organizational change in the federal public sector. Particular attention will be paid to the extensive managerial and organizational reforms of the past decade.

278-682 MANAGEMENT IN THE PUBLIC SECTOR II. Pre-requisite: Management 278-681 or permission of instructor. Focus upon the actors, institutions and processes involved in some or all of: provincial public administration, urban public administration, inter-governmental relations, the regulatory process, government-business relations, public enterprise, government and the consumer, science and technology policy.

278-683 INTERNATIONAL BUSINESS POLICY. Prerequisite: Introduction to International Business 278-686 or permission of instructor. Development and application of conceptual approaches to general management policy and strategy formulation in multinational enterprises. Alternative forms of international business involvement; location strategy; technology transfer; ownership strategy; planning for international divestment. Emphasis on developing practical skills, using case studies and simulated negotiating exercises.

278-684 MANAGERIAL DECISION MAKING: A BEHAVIOURAL VIEW. The decision making activities of managers are explored from various behavioural science perspectives. Topics include prescriptive and descriptive models of decision making, the limits of rationality, the nature of decision problems, individual versus group decision making and others as they apply to the realities of decision making in management.

278-685 CROSS CULTURAL MANAGEMENT. Cross-cultural awareness and communication skills necessary to manage in multicultural organizations. The focus of the course is on the relationship between cultural values and communication styles as they affect inter and intra cultural communication of managers, personnel and clients of multinational and multicultural corporations and organizations.

278-686 INTRODUCTION TO INTERNATIONAL BUSINESS. The expanded world of the international businessman. Economic foundations of international trade and investment. The international trade, finance and regulatory frameworks. Relations between international companies and nation-states, including costs and benefits of foreign investment and alternative controls and responses. Effects of local environmental characteristics (educational, sociological, economic, legal, political) on the operations of multinational enterprises.

278-687 INDUSTRIAL RELATIONS. Unions, management and the public interest; designed to acquaint the student with the problems of industrial relations; the impact of unions on employees and on management; managerial attitudes towards unions and collective bargaining; evolving public policy with regard to labour relations in both the public and private sectors.

278-690 TOPICS IN MANAGEMENT. A learning Cell in which one or more students work on a project in close contact with a Faculty member.

278-691 BUSINESS LAW I. An introduction to law with special emphasis on how it affects the businessman. Topics include: court systems and their organization; practical aspects of procedural law; general nature of contracts and delicts; legal requisites for the validity of contracts; special contracts – sale, lease and hire, agency, bailment, loans, etc.

278-692 BUSINESS LAW II. Pre-requisite: Business Law I 278-691. Legal aspects of law as they relate to the businessman. Topics include: various labour laws and Workmen's Compensation; government regulation of business, Anti-Combines, Consumers' Protection Act, etc.; various aspects of corporate financing business organizations including sole proprietorship, partnership and company law; insurance and bankruptcy; patents and trademarks; commercial papers; tax laws.

278-693 INTERNATIONAL FINANCE I. Pre-requisite: Finance I 274-641. Examines the international financial environment as it affects the multinational manager. In-depth study of the various balance of payments concepts, adjustment of the external balance, and the international monetary system will be followed by a review of theory and institutional aspects of the foreign exchange and the international (eurodollar) markets.

278-694 INTERNATIONAL FINANCE II. Pre-requisite: International Financial Management I, Managerial Finance for Non-Finance Majors or Finance II. Focus on the operational problems of financial management in the multinational enterprise: financing of international trade, determining the firm's exposure to foreign exchange rate changes, protection against exchange losses, international capital budgeting, multinational cost of capital, working capital management and international portfolio diversification.

278-695 COLLECTIVE BARGAINING IN THEORY AND PRACTICE. Pre-requisite: Industrial Relations 278-687 or equivalent. Theory, structure and activity of collective bargaining and arbitration as practiced in Canada and the Western industrial societies in general: how collective bargaining works; why it does or sometimes doesn't work. Emphasis on the realities of actual practice. Contract structure, grievance and arbitration procedures and bargaining practices, including costing of contracts.

278-696 THE ROLE OF GOVERNMENT IN LABOUR RELATIONS. Pre-requisite: Industrial Relations 278-687 or equivalent. Role of government, both as legislator and as employer. Development of public policy toward Industrial Relations and collective bargaining in the private and public sectors as well as other government policies that affect employment and Industrial Relations. The private sector model of collective bargaining and the peculiarities of public employment, whether at senior levels of government, federal and provincial, or at the municipal level, in hospitals and in schools.

278-697 SEMINAR IN INTERNATIONAL BUSINESS. Pre-requisite: International Business 278-686. Recent research development in the field of International Business and/or contemporary related topics. Topics include advanced research methodology, models, results and their practical implication. Emphasis on the emerging concepts, results and/or techniques in different areas of International Business.

278-698 INTERNATIONAL MARKETING MANAGEMENT. Marketing management considerations of a company seeking to extend beyond the confines of its domestic market. A review of product, pricing, channels of distribution and communications policies to develop an optimum strategy (between adapting completely to each local environment and standardizing across them) for arriving at an integrated and profitable operation. Particular attention to international marketing and exporting in the Canadian context.

279-500 LABOUR AND INDUSTRIAL RELATIONS THEORY. History of thought and conflicting theories regarding the labour movement from 1700. Institutional change and the evolving concept of industrial relationships. The concept of industrial democracy and the shifting locus of power of industry, unions and governments. The current dilemma.

279-501 HUMAN RESOURCES IN INDUSTRIAL SOCIETY. Covers the fundamentals of 'manpower' analysis and policy making for the human resources of Canada and Québec. Introduces a fundamental framework for manpower analysis and policy formations. Reviews occupational forecasting in 'manpower' estimation; provides an introduction to further human resource analysis.

279-502 LABOUR UNIONS AND LABOUR RESEARCH. Pre-requisite: Industrial Relations 278-687. Course weds quantitative knowledge about labour unions in Canada and development of applied research skills. Begins by exploring facts concerning extent of union organization, structure, membership and scope of contracts. Teaches and gives practice in application of research tools to solution of labour research problems identified in the first part of the course.

279-591 LONG-TERM CORPORATE PLANNING. Topics include: the need and prospects for future studies and long-term planning in business; techniques and approaches including technology forecasting, social forecasting, delphi techniques and scenario writing; limits to growth controversy and the Conserver Society; energy and other resource depletion: pollution and post-industrial and post-consumer waste, and recycling industries; international implications of resource scarcity and its impact on Canadian business.

279-696 INDUSTRIAL ORGANIZATION: THE COMPETITIVE, REGULATORY AND LEGAL ENVIRONMENT OF THE FIRM. Pre-requisites: Economics 279-691 and 279-692. Examines markets, competition law and regulations leading to an understanding not only of the facts of structure, conduct and performance, but also of the theories and myths that explain why laws and regulations are as they are.

279-697 ECONOMIC ANALYSIS FOR STRATEGY FORMULATION. Pre-requisite: 279-692 and 279-691. Objectives are to develop analytical tools and techniques for use in strategic decision making and to acquire direct and indirect experience in applying economic principles to the analysis of the competitive position of the business firm.

280-610 RESEARCH PROJECT. The process and problems of independent research. Choice of topic be a normative or descriptive study based on primary or secondary data. Opportunity to work on a one-to-one basis with a faculty member. Members of the Montreal business community may act as resource consultants.

280-632D SKILL DEVELOPMENT. Focus on the conversion of concepts to actual behaviour. Students will become increasingly aware of their own and others' behaviour, and sharpen their ability to learn from their own experience: Content of the course builds on the process of a manager's job and includes such skill topics as: meeting management, interviewing, active listening, public speaking, goal-setting, working in groups, and managing conflict.

334-540 AGRIMARKETING. Deals with agriculture and food marketing, management and policy. Includes detailed study of marketing functions, commodity marketing, retail and food service marketing encompassing the total Canadian agriculture and food system from produce to consumer.

334-550 AGRIBUSINESS MANAGEMENT. A course in management and agricultural business dealing with the agribusiness firm engaged in agricultural production and marketing and related farm supply business. The focus of the course is on agribusiness organization, operation, financial management and agribusiness policy in today's complex and changing international environment.

334-660 AGRICULTURAL COMMODITY TRADING. Domestic and international commodity market operations in the world today. Emphasis on future markets since most free market commodity transactions are either directly related to current futures exchanges or utilize the basic concepts that futures market are based upon. Non-agricultural commodities will occasionally be used to help explain some market forces.

154-637 INDUSTRIAL ORGANIZATIONAND REGULATION. An analysis of the nature of the firm, industrial structure, effect of structure on the firm, industry behaviour and performance. Also covers standard topics on the economic behaviour and performance of regulated industries.

154-737 INDUSTRIAL ORGANIZATION AND REGULATION SEMINAR. The seminar builds on material covered in Industrial Organization and Regulation. Problems are examined in greater depth with specific topics varying from feedbacks from performance to industry structure and behaviour and the role of technological change.

276-663 INTERDISCIPLINARY SEMINAR ON REGULATED INDUSTRIES. Provides a forum for students and faculty in several fields (economics, political science, management, law, etc.) who are interested in the study of regulated industry. Students enrolled in the seminar will choose a research topic, make a seminar presentation and submit their research paper. (154-637, 154-737 and 276-663 are offered through the Department of Economics).

7 POLICIES AND REGULATIONS OF THE M.B.A. FULL-TIME PROGRAM

The following is a brief overview of the rules and regulations of the M.B.A. program. Students should request a copy of the "Official Rules and Regulations" from the M.B.A. office.

7.1 CLASSIFICATION OF STUDENTS

Students are generally classified as full-time or part-time depending on whether they are taking their courses during the day or at night and the number of courses they are registered for each term. In addition, students may also be classified as:

a) ***Diploma students*** are those students taking their courses in the evening, through the Centre for Continuing Education, some of which may be M.B.A. I courses. The Diploma program is not a degree program and any Diploma students desirous of pursuing the M.B.A. degree should, therefore, complete the ten M.B.A. I courses in their Diploma program. (Refer to Section 13).

b) ***Non-Resident Students*** Students who interrupt their residence at McGill for a period elsewhere are known as "Non-Resident Students". They must have obtained permission from the Associate Dean of the Faculty to take a leave of absence from McGill. Non-resident students are required to register with McGill each year and pay a fee of $40 per year.

c) ***Special students*** are those students who are not working toward a McGill M.B.A. degree. They usually already have their M.B.A. degree and may take no more than two full courses per year with permission from the Faculty.

d) ***Visiting students*** are students from another university taking a course in the Faculty of Management for credit at their home university.

e) ***Additional session students*** are full-time students working beyond the second year to complete their M.B.A. degree. These students pay $40 per year to maintain their registration with the University.

7.2 WITHDRAWALS FROM AN M.B.A. COURSE

a) Course withdrawals in the *first year* of the full-time M.B.A. program are not normally permitted and will be counted as a failure. Exceptions may be granted with special permission but only int he case of unusual circumstances and this permission must be granted by the M.B.A. Program Director.

b) Students in the *second year* of the full-time program may withdraw from a course without penalty provided they do so prior to the deadline date. After the deadline, a "J" will appear on the student's transcript, and the course is counted as a failure. Exact deadline dates will be provided by the beginning of each term.

7.3 WITHDRAWALS FROM THE M.B.A. PROGRAM

Students wishing to withdraw from the McGill M.B.A. program must complete a "Withdrawal Form" available from the M.B.A. Office. Students will not be considered as officially withdrawn until this form is completed. Students who drop out of the program but do not complete this form will be billed for the full tuition. ***Refer to the General Announcement for further information.***

7.4 EXEMPTIONS AND CREDITS

The McGill M.B.A. Full-time program is designed as a two year, four semester program, five half courses per semester. It cannot be completed in one year. The academic year begins in September and ends in May and full-time students are not permitted to register for summer courses except to prepare for authorized supplemental examinations or for deferred courses. The expectation is that an academically qualified person should be able to carry the full load of courses (i.e. five courses per term in addition to Business Communications and, where applicable, Survey of Basic Mathematics, in M.B.A. I).

Because space does not allow full delineation of the entire policy regarding the granting of exemptions and credits, the following will provide a brief overview, although complete details should be checked with the M.B.A. program adviser.

EXEMPTIONS OR CREDITS WILL NOT BE GRANTED FOR COURSES TAKEN MORE THAN FIVE YEARS BEFORE THE DATE OF ACCEPTANCE IN THE MBA PROGRAM.

Exemptions

a) Introductory undergraduate courses are not equivalent to the M.B.A. I courses and cannot be used to gain an exemption;

b) However, if students have completed a number of courses in any one area toward their undergraduate degree, they may be granted an exemption from the graduate M.B.A. I course, subject to the approval of the M.B.A. Program adviser and the Area Co-ordinator involved, but must replace the M.B.A. I course with an M.B.A. II elective which, in some cases, may be specified by the MBA Program adviser and the Area Co-ordinator.

Credits

Credits may be granted toward the M.B.A. I program for graduate level courses taken prior to application to the MBA program only if:

a) the completed course is of the same content, workload and difficulty level as the M.B.A. I course;

b) the completed course did not count for credit toward another degree.

Note that all exemptions and credits are subject to the approval of the M.B.A. Program adviser and the Area Co-ordinator involved.

No exemptions or credits will be given for second year courses.

7.5 COURSE DEFERRALS

Deferral of courses in the Full-time M.B.A. program is normally *not permitted.* All students registered in the Full-time program are expected to carry a course load of five courses per term. Only in very exceptional circumstances will a student be permitted to defer a course. Written justification must be provided and submitted to the M.B.A. Program adviser for approval.

7.6 GRADING AND PROMOTION STANDARDS

a) The pass mark for each course is 65%.

b) ***Failures:*** Any student failing two courses in one term, prior to writing supplemental examinations, will be denied the privelege of writing supplemental examinations and will be asked to withdraw from the M.B.A. program.

Students who withdraw from courses, excluding "extra" courses, may have the withdrawal counted as a failure for purposes of determining whether he/she should withdraw from the M.B.A. program.

Students must have obtained at least 55% on the failed course and an average of 70% or more on the remaining courses to be eligible to apply for a supplemental examination; students receiving below 55% on the failed course are required to repeat the course or, in the case of an M.B.A. II elective, replace the failure with an additional elective.

c) ***Supplementals:*** Supplemental examinations are considered in no way a right. Rather, they are a privelege to be granted in unusual circumstances. M.B.A. students are mature and presumed to be capable of passing any of McGill's courses given proper attention to preparation. Second chances are not a regular feature of the program. Therefore, students who have received a failing or unsatisfactory final grade in a course are not generally permitted to write supplemental examinations. The Associate Dean of the Faculty of Graduate Studies and Research may grant an exception to this on the recommendation of the M.B.A. Program adviser. The result of such an examination will not replace the whole term's work but will substitute for only the final examinationin recalculating a final grade. A student who wishes to petition for a supplemental examination must do so through the Graduate Program Secretary and submit a written request to the M.B.A. Program adviser.

Students must not approach the Instructors for special permission for supplemental examinations.

d) ***Rereads:*** In cases where students feel that an error has been made in arriving at their final grade, they must complete a Verification Request Form available in the MBA Office. The Instructor is requested to carry out a detailed check that all questions have been marked, that class work has been adequately counted toward the final grade and that the final grade has been correctly computed on the basis of term work, final examinations, etc. No fee will be charged for this verification.

If students still feel that an error is present in their final grade, they may complete a Reread Request Form available from the M.B.A. Office, requesting that a formal reread in their paper be undertaken. There is a $10 fee for this re-read.

Requests for Verification or Reread of an examination must be received by the MBA Office within 30 days of the posting of the final marks.

A second reader will be appointed and will review the examination paper and several other papers in the same general mark range. The re-read will focus on actual errors of marking, whether errors of omission or judgement. The recommendation of the second reader will stand, whether this recommendation involves an up-grading or a down-grading of the original mark. In a case where the original mark is up-graded, the $10 fee will be refunded to the student.

Students must not approach the Instructors for re-reads. Re-reads are granted only in the case of a failed course.

e) ***Promotion into M.B.A. II:*** Students must have obtained an overall average, including all failures and supplemental examinations and repeats, of at least 70% to be permitted to continue into second year and in order to graduate.

7.7 OUTSIDE ELECTIVE COURSES

An outside elective is any course which is not part of the full-time M.B.A. program. This includes courses outside the Faculty of Management within McGill University, outside McGill University or outside the M.B.A. full-time program. Summer or evening courses are not considered part of the M.B.A. full-time program.

Students wishing to take an elective offered in another Department at McGill must first obtain approval from the M.B.A. Program Director. Once approval is obtained, students must obtain permission from the Department offering the course before registering for the elective with their home Department.

All Québec Universities have agreed to permit transfer of academic credit and fees among themselves up to a maximum of two half courses in any one year. However, this agreement includes only those courses not offered at the home university and which fit into the student's program. Authorization for an M.B.A. student to transfer courses must be obtained from the M.B.A. Program Director and the Associate Dean of the Faculty of Graduate Studies and Research, and once approval has been granted, the student must complete a Transfer Credit Form, available from the Registrar's Office.

There are, however, limitations to the number of courses an M.B.A. student can take outside the Faculty of Management during the M.B.A. Program:

a) in general, students are discouraged from taking courses outside the Faculty due to difficulties in determining course equivalency and the possibility of diluting the student's strong program in the McGill M.B.A.

b) a maximum of two half courses per year outside the Faculty of Management can be counted toward the McGill M.B.A. degree. This does not include courses offered by other Faculties at McGill and approved as M.B.A. electives in Section 6 of this Announcement.

c) only when a strong case can be made for taking a course outside the Faculty (i.e. no remotely similar course; a make-up course during the summer, etc.) will a student be permitted to take an outside elective for credit.

7.8 CHEATING

Cheating on assignments or examinations is a serious offence and may lead to disciplinary action, including expulsion.

7.9 PLAGIARISM

Many members of the teaching staff encourage joint work in small student groups. Generally, mutual effort is considered pedagogically sound. In submitting work in their courses, students should remember that plagiarism is considered to be an extremely serious offence. If students have any doubt as to what might be considered "plagiarism" in preparing an essay or term paper, they should consult the instructor of the course to obtain appropriate guidelines.

7.10 VERIFICATION FORMS

A Verification Form, which provides an unofficial copy of the student's record to date, will be mailed by the Faculty of Graduate Studies and Research during the year. It is extremely important that students check this form carefully and inform the Faculty of Graduate Studies and Research of any errors or omissions. In this way, records of students will be correct at all times.

7.11 CHANGE OF ADDRESS

Students who change their address during the academic year must complete a "Change of Address Form" available from the M.B.A. Office. It is very important that students report immediately any change in address. Advice on address changes after graduation is also appreciated.

8 FEES AND EXPENSES

8.1 FEES

The University reserves the right to make changes without notice in the published scale of fees and expenses.

All students are required to pay **at least half** of the total sessional fee within 10 days after they register. The second instalment is due on January 15.

RESIDENCE Students entering residence are required to pay **at least half** of the residence fee within 10 days after they register.

LATE PAYMENT FEE. If payment is received after the time allowed, the following penalties will be assessed: $10 if payment is received within 30 days of the established due date, $25 if payment is received after 30 days of the established due date.

The tuition fees for each year of the program, for a Canadian student, are $570 plus $138.50 for Student Services and Students' Societies fees (this covers charges for the health service, athletic facilities and membership in the Postgraduate Students' Society). Tuition fees may be paid in two instalments.

The tuition fees for each year of the M.B.A. program for a foreign student are $4,218 plus $138.50 for Student Services and Students' Societies' fees (this covers charges for the athletic facilities and membership in the Postgraduate Students' Society). All non-Canadian students must participate in the McGill Non-Canadian Student Health and Accident Insurance Plan covering accidents, emergencies, etc. during their two year program of study at McGill. Single students will be charged an additional $135 per year while married students will be charged $270 per year.

Please note that students having completed courses through the Centre for Continuing Education and who are registering directly into the second year must have paid the equivalent of the first year tuition to the Centre for Continuing Education, otherwise they will be required to pay $570 plus $123.50 for Student Services and Students' Societies fees.

Students transfering from another university into the second year program at McGill must also pay the tuition fees of $570 plus $123.50 for Student Services and Students' Societies fees.

Details of special fees including the application for graduation fee of $25.00 are given in the *General Announcement* which may be obtained from the Registrar's Office, F. Cyril James Building.

8.2 STUDENT EXPENSES

Single Canadian Student in University Residence Minimum Estimate for 1st Year Students

Tuition	$ 570.00
Student Services	95.00
Students' Societies	43.50
Housing and Food-9 months (weekday meals only)	2,500.00
Books and Supplies	650.00
Health Insurance (foreign students only)	135.00
Other Expenses (Average)	1,300.00
	5,293.50

Married Canadian Student with Spouse Working, No Children – Minimum Estimate for 1st Year Students

Tuition	$ 570.00
Student Services	95.00
Students' Societies	43.50
Unfurnished McGill Apartment – 1 yr. lease	3,000.00
Books and Supplies	650.00
Health Insurance (foreign students only)	270.00
Other Expenses (Average)	1,400.00
	6,028.50

Please note that these figures are approximate only and may change at any time.

Miscellaneous Expenses

Personal expenses vary greatly with individual requirements, and clothing, laundry, transportation, entertainment and other expenses should be very carefully estimated.

9 SCHOLARSHIPS AND FINANCIAL AID

All scholarships and fellowships available through the Faculty of Management are awarded automatically on the basis of academic excellence. Please note that students must make separate applications for awards available through the other sources as indicated in the following descriptions.

Qualified students with limited financial resources should not be deterred from applying for admission to the M.B.A. program. Information on financial aid offered by sources outside the Faculty of Management is listed here in in the expectation that applicants will seek such aid in all cases for which they are eligible.

Foreign Students

The Faculty is normally unable to offer any financial assistance to foreign students. We regret, therefore, that we must have a written guarantee in the form of a bank letter that students have the necessary funds to complete their studies. Scholarships or fellowships are occasionally awarded to foreign students with exceptional academic ability, but the amount of the financial aid does not cover all the expenses for two years of study. Funds are available, however, through the Canada Council and the Commonwealth and Colombo Scholarship Plans as described under "International and Private Awards" herein, and should be applied for through your own government.

Financial Assistance Obtained Through the Faculty of Management

Applicants are considered automatically for the following awards. Scholarship winners will be informed prior to registration.

EATON FOUNDATION FELLOWSHIP. Value $2,500. Awarded on the basis of academic merit to a student entering the M.B.A. program and renewable for a second year if satisfactory academic standing is maintained. Preference will be given to Canadian citizens and landed immigrants. Awarded by the Faculty of Management Scholarships Committee.

H.E. HERSCHORN GRADUATE SCHOLARSHIP. Established in 1965, covering the amount of the current tuition fees and tenable by a student entering either the first or the second year of the M.B.A. program.

THE CANADA TIRE CORPORATION LIMITED SCHOLARSHIP. An annual award of $1,000 made to a student entering the first year of the M.B.A. program. This award is renewable for a second year of study if the candidate remains in good academic standing. Recipients are to be selected by the Faculty of Management Scholarships Committee.

RODGIE McLAGAN FELLOWSHIPS IN MANAGEMENT. – Two fellowships of $1,500 each have been established by Canada Steamship Lines for graduate study in management. Recipients are chosen after registration.

XEROX CANADA INC. FELLOWSHIP IN MANAGEMENT. – Value $2,000, established as a centennial project by Xerox of Canada Limited to encourage management studies at the graduate level. Open to students in the M.B.A. Program and awarded by the Scholarships Committee of the Faculty of Management.

Applications must be made as indicated for the following awards:

FACULTY OF MANAGEMENT ASSISTANTSHIPS. – Assistantships up to a maximum of $600 are offered to a limited number of students. Student assistants are expected to carry out specific tasks during the year. (Most of these assistantships are awarded to second year students).

FACULTY OF MANAGEMENT STUDENT LOAN FUND. – A student loan fund has been established and is administered by the Student Aid Office. For further information, apply to the Student Aid Office, McGill University, 3637 Peel Street, Montreal, Québec.

Fellowships and Awards available from various sources

a) The following is a list of awards available through McGill which have been awarded to Management students in the past.

CENTRAL MORTGAGE AND HOUSING CORPORATION GRADUATE FELLOWSHIPS (CMHC). Fellowship stipends are $3,000 plus tuition fees for students proceeding to a master's degrees and $4,000 plus tuition fees for post-master's candidates proceeding to a doctoral degree. (Tenable in a broad range of fields involved in understanding and dealing with urban regional environment.) Candidates must be recommended by the University and must be Canadian citizens or landed immigrants in Canada. Application forms and information are available from: Administrator, Advisory Group, Central Mortgage and Housing Corporation, Ottawa, Ontario. Completed application forms must be received by Central Mortgage and Housing Corporation no later the March 1.

GOVERNMENT OF QUEBEC GRADUATE SCHOLARSHIPS. Competitions are open to Canadian citizens residing in Québec for at least one year and to landed immigrants with 18 months' residence in Québec at the time of their application for a grant.

i) **Type B1 – Graduate Scholarships.** Valued up to $4,500 for married students and up to $3,000 for single students. Open to all fields of study but applicants must hold a Bachelor's degree or first university degree.

   Type A3 – M.B.A. Scholarships. (Jeunes Administrateurs). – 75 scholarships available, valued at up to $6,000 for single students and up to $8,000 for married students, tenable for a period of 12 months. Applicants must hold a first university degree with two years of full-time experience in Québec in some executive capacity in a small or medium-sized business.

N.B. Students must submit the completed application directly to the Québec Government by January 15 at the very latest.

FRIENDS OF McGILL FELLOWSHIP. Value: $4,500 plus fees. Tenable for one year, renewable in competition with other applicants. Open to a graduate student in any discipline who is a citizen of the United States of America. The fellowship is made available through the McGill Development program by the Friends of McGill, Inc., New York. Applications: apply to the Fellowships office, Faculty of Graduate Studies and Research by February 1.

McCONNELL MEMORIAL FELLOWSHIPS. These fellowships were established by the J.W. McConnell Foundation to support postgraduate studies and research at McGill University, and so to strengthen, in quality and numbers, the academic staffs of Canadian universities and schools. These fellowships may be held by students registering in any postgraduate research program at McGill, but only those whose homes are in Canada, or who intend to make their homes in Canada, are eligible to apply. The fellowships are intended to cover full fees, living expenses, the cost of books and such travelling as a Fellow's studies may require. The normal value of a first year award is $4,500 plus fees and further allowances are payable for dependents. The initial award is normally for a period of two years, but the fellowships are intended to carry a student through to a doctoral degree, and may be held for a total of five years. Fellows will be expected to spend the full calendar year (with the exception of a month's summer holiday) on their studies, and may not accept any remunerative appointment during the tenure of the fellowship

without permission. Application forms may be obtained from the Faculty of Graduate Studies and Research and completed forms must be returned to that office before February 1.

MAX BINZ BURSARIES FOR FOREIGN STUDENTS. Established by the estate of the late Max Binz. These Bursaries are valued at $1,000 per annum and are renewable, but are not tenable concurrently with a major scholarship or fellowship. The Binz Bursaries are intended to help defray the expenses of graduate students coming to McGill from overseas countries (including South and Central America and Mexico). Foreign nationals who are Canadian landed immigrants (and therefore eligible for several categories of Canadian financial assistance) are not eligible for the Bursaries. The applicant must be in residence at McGill at the time of application. Apply to Graduate Faculty Fellowships Office, Dawson Hall, McGill University, Montreal, Québec, Canada. Completed applications must be recieved by the Fellowships Office no later than April 1.

TRANSPORTATION DEVELOPMENT AGENCY FELLOWSHIPS. This federal agency offers postgraduate fellowships for the support of thesis research in a broad range of fields related to transportation. Value: $4,650 plus fees. The fellowship may be held for one year while studying for the Master's degree, and renewed up to a maximum of two more times while studying for the Ph.D. Fields: work relating to any aspect of transportation. Eligibility: Canadian citizens or landed immigrants; only citizens may hold the fellowship outside Canada. Applications: Forms may be obtained from the Fellowships Office, Faculty of Graduate Studies and Research. The due date varies but will be in early January.

b) The fellowing awards are also available through McGill but are so competitive that they have not been awarded to Managements students in several years.

BELL CANADA FELLOWSHIP PROGRAM – Up to a total of eight graduate fellowships in the amount of $3,500 to Fellow and $1,500 to University (Fellow's tuition fees will be paid out of the $1,500) will be given annually; four of which will be new awards. Candidates must be Canadian citizens or must have held landed immigrant status for one year prior to submitting an application. Applicants must be graduates of a university or college with standards accepted by the Association of Universities and Colleges of Canada. The field of study is unrestricted, but preference will be given to subject areas relevant to the scientific, political, social or economic needs of Canada. On completion of the fellowship, duplicate copies of a thesis or reasonably detailed account of the work done, should be sent to the Director of Awards, A.U.C.C., who in turn will forward one copy to Bell Canada. Apply before March 1 to Director of Awards, A.U.C.C., 151 Slater Street, Ottawa, Ontario K1P 5N1.

GULF OIL CANADA LTD. GRADUATE FELLOWSHIPS. Nine fellowships of $3,500 each, plus $1,000 for research expenses, open to residents of Canada who are graduates of institutions which are members of the Association of Universities and Colleges of Canada, and are tenable at any such university. Candidates must be Canadian citizens or must have held landed immigrant status for one year prior to submitting application. Unrestricted as to field of study. Apply to the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater Street, Ottawa, Ontario K1P 5N1. Completed applications must reach the Director before March 1.

ISABELLA C. McLENNAN FELLOWSHIPS. – $900. Awarded by the Graduate Faculty Scholarships Committee to a woman student in the Faculty of Graduate Studies and Research on the basis of academic merit and financial need. Apply to the Fellowships Office of the Graduate Faculty. Dawson Hall, before February 1.

SOCIETY OF INDUSTRIAL ACCOUNTANTS OF CANADA BUSINESS FELLOWSHIPS. – Five fellowships of $1,200 each are available annually to students enrolled in a graduate business program at Canadian universities. Awards are to be granted to students whose program indicates an interest in Management Accounting and Accounting Research. Apply before April 1 to: Administrative Secretary, Fellowships Selection Committee, Society of Industrial Accountants of Canada, P.O. Box 176, 154 Main St. East, Hamilton, Ontario.

SOLVAY FELLOWSHIP. – Value $3,500 plus tuition fees, offered for the first year of study in the Faculty of Graduate Studies and Research. Tenable in any Department of the Faculty, and open to men and women equally. The holder must have graduated in any undergraduate Faculty of McGill in the session prior to that for which the award is given, and must obtain permission to proceed to graduate study. No teaching duties are required of the holder, who may not hold any other fellowship or bursary, nor receive a salary for teaching or other duties, during his tenure. Apply to the Fellowships Office of the Graduate Faculty before February 1.

Note: For further information contact the Fellowship Office at McGill University, 3rd floor, Dawson Hall, McGill University, Montreal, Québec, for the booklet *entitled Postgraduate Awards, Fellowships and Bursaries.*

Provincial Bursaries and Loans

Applicants must be a Canadian citizen or permanent residents with one year's residence and domicile in the province to which they apply.

In all provinces, except Québec and Ontario, the provincial authority listed below administers the Canada Student Loan Plan (Federal) as well as their own programs. The addresses are as follows:

Québec: Apply after May 1, at the Student Aid Office, 3637 Peel St., McGill University, Montreal, Québec, H3A 1W7.

New Brunswick: The Director of Student Aid, Department of Youth and Welfare, Frederiction, NB.

Northwest Territories: Director of Education, Government of the Northwest Territories, Yellowknife, NT X0E 1H0.

Ontario: Apply after May 1 to the Ministry of Colleges and Universities, Students Awards Branch, Mowat Block, Queen's Park, Toronto, ON M7A 2B4.

Manitoba: The Student Aid Office, Department of Youth and Education, 413 Robert Fletcher Bldg., 1181 Portage Ave., Winnipeg, MB.

Yukon Territory: The Students Financial Assistance Awards Committee c/o Superintendent of Education, Box 2703, Whitehorse, YT Y1A 2C6.

For all other provinces write to the provincial Department of Education.

International and Private Awards

CANADA COUNCIL – The Canada Council offers fellowships and grants in the social sciences and humanities at the master's and doctoral level. These categories extend to undertakings of an interdisciplinary nature, but not to those closely identified with the physical and biological science, or with professional training.

Informative leaflets and application forms are obtainable from departmental offices in the social sciences, humanities and related disciplines, from the Fellowships Office of the Graduate Faculty, or from: The Canada Council, P.O. Box 1047, Ottawa, Ontario, K1P 5V8.

COMMONWEALTH SCHOLARSHIP AND FELLOWSHIP PLAN. – Provides opportunities for Commonwealth students to pursue advanced courses in other Commonwealth countries. Canadidates must have graduated from a recognized university or hold equivalent qualifications; age limit normally 35. Successful candidates must plan to return to their own country upon completion of the study for which the award was intended. Graduate awards are usually made for two academic years and the intervening summer. They include tuition, travel expenses, maintenance allowance and a grant for incidental expenses. Closing date for receipt of completed applications varies with country of tenure, but all deadlines are in the Fall for Northern Hemisphere countries; for Southern Hemisphere countries, December 31 (approximately 1½ years prior to date of tenure). Full information and application forms may be obtained from the Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario. K1P 5N1.

CONSOLIDATED BATHURST LTD. GRADUATE FELLOWSHIP. – One postgraduate fellowship of $3,500 per year available to students working towards a post-graduate degree in a university recognized by the Association of Universities and Colleges of Canada and who have been recommended by the faculty of their choice. Though preference will be given to candidates registered in a doctoral program, candidates working towards a Master's degree will be considered. Open to any permanent employee in Canada, being for this purpose an employee with two or more years of service. Open also to any son, daughter or legal ward of a permanent, pensioned or deceased employee in Canada. Candidates must have completed undergraduate studies in a university or college whose curriculum is recognized by the Association of Universities and Colleges of Canada and must have obtained satisfactory results during their undergraduate studies. The decision of the committee will be based upon the student's academic transcripts, a confidential report from the university, reference letters and results of any achievement or aptitude tests taken. A fellowship holder may not hoid concurrently other fellowships or awards totalling in excess of $1,500. Apply to: Director of Awards, Association of Universities and Colleges of Canada, 151 Slater Street, Ottawa, Ontario. K1P 5N1. Completed applications must be submitted in quadruplicate no later than May 1.

DEVELOPING COUNTRIES' PROGRAMS. – Students from developing areas should apply to their own Departments of Education to see whether their governments will recommend them for Colombo Plan Scholarships, Special Commonwealth Africa Aid Programs, etc.

FRANCE-QUEBEC SCHOLARSHIPS. – Information and application forms may be obtained from the Fellowships Office, Faculty of Graduate Studies and Research.

INSTITUTE OF MANAGEMENT CONSULTANTS OF QUEBEC THESIS AWARD. A research paper prize, offered by the Institute of Management Consultants of Québec, in the amount of $500 will be awarded to the student whose paper best meets the following criteria: i) it must deal with a management theme; ii) be written in English or in French, with no limitations as to length; iii) contribute to the advancement of the art and science of management and iv) be available for publication by the IMCQ in any professional trade magazine.

Each university is to forward its most promising papers. The winner will be announced in June.

LEVER BROTHERS LTD. BILINGUAL EXCHANGE FELLOWSHIP IN BUSINESS ADMINISTRATION. – Up to two fellowships of $7,000 plus summer employment will be awarded annually: one to a French-language candidate who will attend an English-language institution and one to an English-language candidate who will attend a French-language institution. Candidates must be Canadian citizens, under 30 years of age, who have clearly demonstrated a proficency in the language of the institution they wish to attend. Summer employment for scholarship winners is guaranteed by Lever Bros. Ltd., and will be of a nature that will prove interesting and challenging. Apply to: Director of Awards, Association of Universities and Colleges of Canada, 151 Slater Street, Ottawa, Ontario. K1P 5N1. Completed applications in quadruplicate must be received no later than March 1.

UNITED STATES' CITIZENS AWARDS, LOANS AND GRANTS. – For information on the above, contact your local bank branch.

ASSOCIATION OF UNIVERSITIES AND COLLEGES OF CANADA. – The Awards Service of the Association of Universities and Colleges of Canada does not itself offer any awards but it does administer several national and international programs on behalf of Canadian and foreign donors, both private and governmental. Inquiries from students regarding financial aid can be addressed directly to the Association at 151 Slater Street, Ottawa. Ontario. K1P 5N1.

There are several other programs which enable foreign students to come to Canada to study, sponsored by the Canadian International Development Agency, under the Department of External Affairs. These include the Colombo Plan, Economic Assistance to French-speaking West Africa, Special Commonwealth Africa Assistance, Caribbean Assistance Program. Interested students may apply through the Ministry of Education or through the appropriate government department in their own country.

FOUNDATIONS AND PRIVATE AGENCIES. Thousands of professional associations, foundations and companies offer financial support for the graduate student. Details about these can be found in the following publications which are available in large public libraries, university reference libraries and consulate or embassy offices.

STUDY ABROAD: This UNESCO publication lists awards tenable in Canada, as well as in other countries.

FELLOWSHIPS AND SCHOLARSHIPS OFFERED BY PRIVATE DONORS AND FOREIGN GOVERNMENTS FOR CANADIAN STUDENTS. This publication is available from the Association of the Universities and Colleges of Canada, 151 Slater Street, Ottawa, Ontario, K1P 5N1.

ANNUAL REGISTER OF GRANT SUPPORT. List of major awards distributed by American agencies.

GRANTS REGISTER: List of postgraduate awards in the English-speaking world.

10 STUDENTS' ACTIVITIES AND STUDENT SERVICES

10.1 STUDENTS' ACTIVITIES

All students registered in the University are members of the Students' Society. The Postgraduate Students' Society operates semi-autonomously within the Students' Society. The P.G.S.S. has its own centre, Thomson House, with offices and meeting rooms, and for relaxation an eating area and a bar, as well as other rooms for reading, games, music, recreation and dancing. During the academic year, the Society arranges a number of cultural, recreational, political, and educational events. Its intramural athletic program operates throughout the academic year and the summer session. It issues a handbook at registration containing information designed to solve potential problems before they occur. Copies can be had in advance by writing to the P.G.S.S. at Thomson House, 3650 McTavish Street, Montreal, P.Q. H2C 3G1.

The McGill Dames Society is a social outlet for wives of graduate students. It has accumulated some very useful information of help to newcomers in finding accommodation and employment.

10.2 STUDENT SERVICES

10.2.1 Athletics Facilities

The university offers many facilities for athletic participation and instruction.

The Sir Arthur Currie Memorial Gymnasium has basketball and squash courts, swimming pool, badminton courts, volleyball courts, and facilities for floor hockey, gymnastics, wrestling, fencing, weight-training, track and judo. The McGill Winter Stadium's artificial ice rink is in demand for hockey games, and competitive as well as recreational skating. In Macdonald Park on the side of Mount Royal, the Percival Molson Stadium with a full-sized football field encircled by a 440-yard cinder track, seats 20,000 people. Besides it, also in the Park, are another full-sized footbal field, a multi-purpose recreational area, and four hard-surface tennis courts.

The University fields teams in a number of inter-collegiate sports.

A Student Identity Card entitles a student to use all facilities and gives admission to most home competitions free of charge.

10.2.2 Bookstore

The University has its own bookstore on the main floor of the Samuel Bronfman Building. It carries a complete stock of textbooks for all courses, and other materials and supplies. Individual items not ordinarily carried can be specially ordered on request. The bookstore is open until 8 p.m. Monday to Thursday during registration time and from 9 a.m. until 4 p.m. Monday through Friday during the academic year.

10.2.3 Health Service

All new McGill students receive a Medical Questionnaire which must be completed and returned to the Health Service.

The Student Health Service provides a full range of medical service which is available day and night to provide treatment for any minor illnesses, accidents and emergencies. Professional help is also available for students in emotional or psychological difficulties.

(Note to non-Canadian students: The Province of Québec does not provide insurance for medical purposes to non-Canadian students and the University has instituted the compulsory McGill Non-Canadian Student Health and Accident Insurance Plan at $135.00 for single students and $270.00 for married students, payable at registration.)

10.2.4 Housing and Food

McGill is in the heart of the city of Montreal and there are a variety of private rooming houses and apartment buildings which may be considered on arrival. The Off-Campus Housing Service is available to all McGill students who are asked to apply in person to Room 401, 3637 Peel Street. However, if students are interested in University accommodation the following information may be helpful.

McGill has four co-educational residences in Macdonald Park on the side on Mount Royal overlooking the city. They are named Douglas, Gardner, Molson and McConnell Halls, after University benefactors. Accommodation in Douglas Hall takes the form of self-contained suites of three study-bed-rooms and one shared sitting room. Douglas Hall has its own dining room, library, common room, and recreation rooms. McConnell, Molson, and Gardner Halls house students in single rooms. The four halls together accommodate 816 students. Each hall has its own common room, library, and recreation room. The three buildings surround a central catering and dining facility, Bishop Mountain Hall. Students wishing to live in residence should apply to the Residence Secretary, 3935 University Street, Montreal, PQ H3A 2B4, when making their application for admission. Upon acceptance into the program, the Residence Secretary should be contacted to see if a decision has been made regarding application for accomodation. Applications should be submitted prior to May 1.

The Royal Victoria College, 3425 University Street, is a residence for women students. Application should be made to the Residence Secretary at the address given above.

Married students may request accomodation in one of the apartment buildings, especially acquired by the University for married students. The Real Estate Manager, Apt. 202, 3575 University St., Montreal, PQ, H3A 2P1, arranges these tenancies.

11 M.B.A. PLACEMENT OFFICE

As of 1 June 1979 the M.B.A. program has its own Placement Office. This office was set up in order to serve employers and students in a more personal manner and also to enable company representatives to meet with our Faculty Staff.

Companies recruit M.B.A. graduates during the months of November-December and January-February. Students are encouraged to visit the Placement Office early inorder to familiarize themselves with the purpose and activities of this office.

12 RESEARCH

The vitality of a university faculty is usually reflected in the quality of its research work output and exposure. the quality of a research work depends on its contribution to the body of knowledge in the sciences, its novelty, defensiveness and availability. These criteria are measured usually by publication in respected academic and professional journals. Members of the Faculty of Management are engaged in research concerning almost all areas of administration and business. On-going research work is presented by faculty members inweekly workshops to which M.B.A. and Ph.D. students are welcome. An annual Faculty publication and working papers (research in progress) list is publicized each June by the Faculty research Committee, and is available upon request.

Creative research work increases knowledge and understanding of many management issues, instills researchers, and develops their skills to systematically solve managerial issues which are an integral part of the environment in which they may spend their working life. Engagement in research is challenging and stimulating. It may provide an opportunity to interact with people of different backgrounds in various Social Sciences' disciplines. M.B.A. students may find seminar classes a useful vehicle to increase their research ability.

13 THE McGILL M.B.A. PART-TIME (EVENING) PROGRAM

The Faculty of Management, in cooperation with the McGill Centre for Continuing Education, offers an M.B.A. Program for Part-time students. The courses are all offered in the evening, and over four terms - Fall, Winter, and two Summer sessions. While the courses are very similar to those in the day program, the McGill Part-time M.B.A. is a more flexible program, designed to suit the needs and circumstances of the more mature student with a full-time job.

NOTE: This is a part-time program and students are not permitted to pursue this program on a full-time basis.

13.1 ADMISSION PROCEDURES

Admission to the McGill Part-time M.B.A. Program may be made twice a year. Completed application forms and all supporting documents must be received by the following dates:

June 30th. for admission in September, and November 15th. for admission in January.

All applications should be sent to:

The McGill M.B.A. Program
Admissions Officer
Faculty of Management
McGill University
1001 Sherbrooke St. W.
Montreal, Québec H3A 1G5

There are four routes into the McGill Part-time M.B.A. Program:

a) ***Direct Admission:*** you apply initially to M.B.A. I Part-time at the outset. If you meet the entrance requirements of the M.B.A. Program, namely:

i. an undergraduate degree* from an approved university;
ii. with a 3.0 Grade Point Average (out of 4), or a "B" average (70.);
iii. a Graduate Management Admission Test (GMAT) score of 500 or more;
iv. a Test of English as a Foreign Language (TOEFL) score of 550 or more for foreign students whose first language is not English;
v. two positive letters of reference.

you may be directly admitted to the M.B.A. Part-time Program. These procedures are similar to the day program admissions.

b) ***Deferred Admission:*** you apply as above, but do not meet all the criteria, particularly the Grade Point Average requirements. Here, you are asked to enter the Diploma Program (refer to Section 13). After completing five courses**, which we specify, and attaining a Grade Point Average of 70., with no failures, and in keeping with the conditions specified in the initial contract of acceptance we make with you, you may be admitted into the M.B.A. I Part-time Program.

c) **Diploma/MBA:** you enroll in the Diploma Program (Section 13) and take five prespecified courses as indicated in the M.B.A. I sequence. After completing these five courses**, with an average of 70%, with no failures, you may apply to the Part-time M.B.A. I evening Program and thus enter the Part-time MBA I part-way through.

You should not deviate from the five** specified courses, nor the sequence. If you are eligible for credits or exemptions, these must be approved in advance by the M.B.A. program adviser.

d) ***Direct Admission to M.B.A. II:*** you enroll in the Diploma Program (Section 13) and take the M.B.A. I evening courses, in the sequence indicated. Upon completion of the ten MBA I courses, with no failures and an average of at least 70., you may apply for Direct Entry to M.B.A. II.(Again, exemptions and credits must be approved in advance by the M.B.A. program adviser and according to the M.B.A. Program criteria, if the Diploma Year is to be used in lieu of M.B.A. I).

Regardless of which route is followed, all applicants must fulfil the entrance requirements of the M.B.A. Part-time Program as outlined in items i-v.

Students should note that the entrance criteria (items a through d) are generally viewed as the minimum entrance criteria before applicants are seriously considered by the Admissions Committee. The large number of applicants to the M.B.A. Program and the desire to keep the program at a moderate size means that merely meeting the minimum criteria does not guarantee acceptance.

** or equivalent, as approved by the McGill Faculty of Graduate Studies and Research.*
*** or six courses, if the remedial course, Survey of Basic Mathematics, is required.*

13.1.1 Which Route is Best?

If you do meet all the criteria for Direct Admission (a), you should apply immediately for admission to the Part-time Program before you take any courses; and even if you do not quite meet the specified entrance requirements, you still should apply at the outset – you may become a deferred student (b).

If you are now in the Diploma Program and become interested in the M.B.A. degree, you should consider applying after the specified five courses (c).

The Diploma Program should be considered as an alternative if you do not meet the entrance requirements for the Part-time M.B.A. Program. Please note that proficient performance in the Diploma Program does not guarantee admission to the Part-time M.B.A. Program.

Although students who complete the Diploma can apply to M.B.A. II (d), if you are at all interested in the M.B.A., you should be taking steps to enter long before you complete the full ten or eleven courses in the Diploma (that is, routes a, b or c, in that order are generally preferred). Students who have completed the Diploma prior to applying to the M.B.A. (d) have, in many cases, found they have taken the wrong courses; that the rules changed in the meantime; or that credits and exemptions granted did not apply to the M.B.A. Program. So please bear this in mind when considering applying.

13.1.2 Foreign Students

There is no financial aid for students registered in the Part-time Program. Foreign students who plan to seek employment in order to finance their studies must obtain permanent resident visas. The Faculty cannot undertake to find employment for them. Foreign students with a student visa are not permitted to take employment in Canada.

13.2 STRUCTURE OF THE M.B.A. PART-TIME PROGRAM

M.B.A. I PART-TIME

First Five (or six)

Survey of Basic Mathematics OR
The Test for College Entrance Mathematics

1. Accounting – A Management Approach
2. Basic Management Statistics
3. Economic Analysis of Business
4. Data Processing and Computers
5. Marketing Management I

Second Five

6. Finance I
7. Economic Environment of the Firm
8. Introduction to Modelling Methods
9. Organizational Behaviour
10. Organizational Theory and Design

OR

Introduction to International Business

These eleven M.B.A. I courses must be taken in a prescribed sequence in order to permit some degree of dovetailing and integration of material through the first year. Course approval forms are mailed to each student before the beginning of each term and students must take the courses approved.

In the case of exemptions, where M.B.A. II courses are taken as substitutes for M.B.A. I, these advanced courses must be done *only after* the remaining M.B.A. I courses have been completed.

Each of the above courses consists of thirteen lectures of three hours each and are offered four times a year. Detailed course descriptions are provided in the Centre for Continuing Education Announcement.

M.B.A. II PART-TIME

Students may qualify for entry into the second year of the Part-time Program upon successful completion of the first year with an average of at least 70%.

The M.B.A. II program consists of:

a) two full-year required courses; Management Policy & Skill Development
b) eight electives or six electives and an independent research project.

The two required courses must be taken concurrently and the electives are chosen from a list which covers the following topics:

Management Science
Accounting Management Information Systems
Accounting & Finance
Finance
Human Resource Management
Institutional Finance & Real Estate
International Business/Finance
International Business/Management
International Business/Marketing
Marketing
Managerial Economics
Small Business
Management Policy
Industrial Relations
Public Sector Management
Regulated Industry Management

Details on the courses in the second year are provided in a package of material mailed to all accepted M.B.A. II Part-time students.

All courses are held once a week only.

INDEPENDENT RESEARCH PROJECT

This project is designed to familiarize students with the process and the problems of independent research. The student is given considerable freedom in choosing research topics. The study may be a normative one or a descriptive one. It may be based on primary data or secondary data. In this project, students get the opportunity to work on a one-to-one basis with a Faculty member for the entire academic year. Members of the Montreal business community act as resource consultants when this appears desirable.

Note: Students who wish to switch from the Part-time to the McGill Full-time Program must do so at the end of M.B.A. I. Students with an excellent academic record in the Part-time M.B.A. I course into M.B.A. II. However, successful completion of M.B.A. I in the Part-time Program does not guarantee entry to the Full-time Program. The demanding entrance requirements of the Full-time program must still be met. (Section 4).

14 THE DIPLOMA IN MANAGEMENT

The Centre for Continuing Education offers the Diploma in Management Program for students wishing to continue their education to the graduate level but may not be interested in pursuing the M.B.A. degree. All the courses are offered in the evening, some of which are equivalent to the M.B.A. I Full-time courses.

All students intending to register for the Diploma in Management Program are required to take the Test for College Entrance Mathematics through the Centre for Continuing Education and, if they are unsuccessful, they must take a non-credit Survey of Basic Mathematics course.

Listed below are the ten courses which are equivalent to the M.B.A. I courses and, if completed successfully, may qualify a Diploma student to apply to the M.B.A. Program on a Full-time or Part-time basis.

1. Accounting – A Management Approach
2. Basic Management Statistics
3. Economic Analysis of Business
4. Management Information Systems
5. Marketing Management I
6. Finance I
7. Economic Environment of the Firm
8. Introduction to Modelling Methods in Management
9. Organizational Behaviour
10. Introduction to International Business
    OR
    Organizational Theory and Design

In addition to the above courses, the Centre for Continuing Education offers several other courses toward the Diploma in Management Program. Therefore, any student enrolled in the Diploma in Management Program who is interested in later transferring into the M.B.A. program, either Full-time or Part-time, should complete *only those courses* listed above before applying for admission into the M.B.A. program.

For more information on the Diploma in Management program, you should contact:

Centre for Continuing Education
McGill University
Strathcona Hall
772 Sherbrooke St. West
Montreal, PQ H3A 1G1
Telephone: 392-6700

15 JOINT PH.D. IN ADMINISTRATION

The Ph.D. Program in Administration is offered jointly by the four Montreal-area universities: Concordia University, Ecole des Hautes Etudes Commerciales (affiliated with the Université de Montréal), McGill University, and Université du Québec à Montréal. The program is intended to train competent researchers and to stimulate research on administrative problems, particularly in the Québec and Canadian contexts.

The program represents a number of innovations in doctoral work in the field of administration. First, by cooperating, the four universities are able to make available to the students a diverse pool of about 200 professors qualified to direct doctoral level study and research. Second, the program has been carefully developed to encourage independent, creative work on the part of its students, with close, personal contact with the professors. This program will appeal especially to the mature, experienced candidate with relatively well-defined interests. Third, the doctoral program has a serious language requirement. The program is a bilingual one. Students are expected to develop a working capability in both English and French by the time they enter the second phase of the program. (All papers may, however, be written in the language of the student's choice.) This is viewed as a definite advantage of the program for those students who expect to work in Canada after graduation.

The program places considerable emphasis on the theoretical foundations of administration and its underlying disciplines. It is for this reason that the degree has been designated a Ph.D. rather than a D.B.A.. Graduates of the program are expected to have: (1) some knowledge of all the main areas of administration, (2) a thorough knowledge of one applied area of administration, and one related underlying discipline, (3) a complete command of the research methodologies used in administration, and (4) some familiarity with modern theories and methods of the pedagogy of administration.

The program consists of three phases: preparation, specialization and dissertation.

Phase I Preparation

The preparation phase is intended to give each student some understanding of the range of subject matter that makes up contemporary administrative theory. On entering the program, the background of each student will be judged in each of the following areas, with deficiences to be made up by M.B.A. courses, papers, or assigned readings:

-Behavioural Science
-Economics
-Management Science
-Marketing
-Finance
-Management Policy
-Accounting and Control

Some students - notably those with strong master's degrees in administration — have a minimum of work in Phase I; others require up to one academic year of work. In addition, in Phase I all students take a seminar in Fundamentals of Administrative Thought" (278-704), which introduces them to the basic concepts of scientific inquiry, and relates this to the history of administrative thought, its various shcools, and contemporary issues in the study of administration. This seminar, is offered jointly by professors from the four universities.

Phase II Specialization

In Phase II, students probe deeply into their chosen area of specialization. Students work out, with their advisory committee, an individual program of study, which takes about eighteen months. The specialization phase focusses on one applied area and one support field. The applied area could be one of the basic ones discussed in Phase I (for example, management policy or management science), a sub-area within one of these (such as organizational development within organizational behaviour), or an interdisciplinary area that combines two or more of these (such as behaviour aspects of accounting or international marketing). In general, the program does not define fixed areas of specialization, but rather leaves itself open to the area of interest defined by the student, so long as there exists a sufficiently strongcore of faculty members interested in that area to supervise the student.

The support field is selected to help the student develop a foundation of knowledge in a fundamental discipline that underlies the theory in administration. For example, a student in marketing might select psychology, sociology, or statistics. One in international business might select economics or anthropology. One in management policy might select political science or general systems theory or perhaps even philosophy.

Students officially enter Phase II of the program when their advisory committee has been established and, together with the student, formally agrees on a proposal for the work to be done in Stage II. This includes the following:

- Two major theory papers, equivalent to about two months of full-time work each.
- A doctoral seminar in the applied area (or an equivalent reading course if the number of students studying in the area in a given year does not justify a seminar).
- Any other existing graduate level courses in the applied area and support field deemed appropriate by the advisory committee (students will normally take at least two such courses or the equivalent in their support field).
- "Seminar on Research Methods" (278-707) taken in common by all Phase II students.
- "Seminar in Pedagogy" (278-706) taken in common by all Phase II students.

– A detailed bibliography on which the student will be examined in the "Comprehensive Examination" (278-701), the last step in Stage II.

The advisory committee will normally consist of four persons, a chairman and three others decided upon jointly by the chairman and the student. One of these members will typically come from the support field. In addition, at least one other of the participating universities must be represented on every student's advisory committee.

Phase III Dissertation

The third phase of the program consists of the dissertation during which the student probes deeply into a well-defined research topic. The topic is developed with the thesis committee, which may be the same as the Phase II advisory committee or may be reconstituted, again with representation from at least one other of the participating universities. The topic is approved formally by the dissertation committee, and once the research is completed and the dissertation written, the student defends the completed thesis publically as the last step in the Ph.D. program.

ADMISSION

Candidates will normally hold an M.B.A. or other related Master's level degree, with a strong academic record from a recognized university. In certain cases, candidates without related master's degree but with exceptional backgrounds will be considered for the program. Full-time work experience will be considered a desirable feature of the applicant's background. The program is prepared to accept twenty or more students per year in all four participating universities.

Students may apply for admission to one or more of the participating universities. These applications must be completed by March 31 for September admission (or October 15 for limited January admission). These applications will be processed by both the individual university and the joint committee of the four. Students' preferences will be taken into account when more than one participating university is prepared to accept them. The Ph.D. degree will be granted by the university that admits the student. The program requires a minimum full-time residency of two years. Each university will accept time spent in residency at any of the other three participating universities as satisfying its own residency requirement.

Completed McGill application forms should be sent to:

Mrs. Cynthia Derynck
Secretary, Ph.D. Program
McGill University
Faculty of Management
1001 Sherbrooke St. West.
Montreal, PQ H3A 1G5
Telephone: (514) 392-4726

Requests for application forms from the other three participating universities should be addressed to the Chairman, Ph.D. Program:

Concordia University
Faculty of Commerce and Administration
1455 Drummond Street
Montreal, PQ H3G 1M8

Ecole des Hautes Etudes Commerciales
5255 Decelles Avenue
Montreal, PQ H3T 1V6

Département des Sciences Administratives
Université du Québec à Montréal
1193 Place Philippe
Montreal, PQ H3C 3P8

16 AFFILIATED ORGANIZATIONS AND PROGRAMS

16.1 THE MANAGEMENT INSTITUTE

The Management Institute provides a variety of services on behalf of the University to managers in business, government and non-profit institutions. Within the management development program of the Institute, over thirty-five daytime seminars and nineteen evening courses are offered each year. These seminars and courses, which cover a wide range of functional areas, are specifically designed to help middle and senior management keep abreast of current developments in analytical and decision making techniques, and to provide a better appreciation of the integrative problems of general management.

Lecturers and seminar leaders, recognized authorities in their fields, are drawn from the Faculty of Management at McGill, from other universities in North America, and also from the community of practising managers in Montreal. All courses and seminars are held on university premises. They are restricted as to number of participants in order to ensure full discussion and individual attention.

Other activities of the Management Institute include seminars and conferences for senior officers of companies in the regulated industries

and the McGill Conference on Industry and Government, which brings together senior people in business and government to discuss issues affecting the progress of the Canadian economy.

The Institute is under the direction of Professor R.N. Morrison.

16.2 THE INDUSTRIAL RELATIONS CENTRE

The Centre generates information on industrial relations through evening seminars, an annual conference, research and special workshops for union and management groups.

It maintains a computerized analysis in French and English of approximately 1,300 Canadian collective agreements. It offers fellowships and research training for qualified applicants and publishes a review of its activities three times a year, which also surveys developments in industrial relations and reports on recent research in the field.

The Centre, housed on the fifth floor of the Bronfman Building has its own seminar rooms, facilities for a data bank with its own terminal lines to the central McGill computer, and access to a library collection of industrial relations publications in the same building.

Frances Bairstow, Director.

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845 Sherbrooke Street West
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1982-83
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The University reserves the right to make changes without prior notice in the information contained in this calendar including the alteration of regulations and the termination of any course or program.

1 STAFF

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FRANK R. SCOTT, C.C., Q.C., B.A. (Bishop's and Oxon.), B.Litt. (Oxon.), B.C.L. (McG.), LL.D. (Dal., Man., Qu., U.B.C., Sask., Osgoode, McG., Laval, York, Carleton, Simon Fraser), D.C.L. (Bishop's, Windsor), D.Litt. (Sir G.Wms. and Tor.), D.-ès-Jur.(Montr.), F.R.S.C. **Emeritus Professor**

MAXWELL COHEN, O.C., Q.C., B.A., LL.B. (Man.), LL.M. (Northwestern), LL.D. (U.N.B., Man., York, Dal.), D.C.L. (Bishop's) **Emeritus Professor**

JOHN P. HUMPHREY, O.C., B.Com., B.A., B.C.L., Ph.D. (McG.), Doctor of the Univ. of Algiers, D.Sc.Soc. (Ott.), LL.D. (Carleton, Dal., McG., St. Thomas), D.C.L. (Mt.A.),D.Litt. (Acad.)
Retired Gale Professor of Law

ALAN B. GOLD, Q.C., B.A. (Qu.), LL.M., LL.D. (Montr.), Chief Judge, Provincial Court
Scholar in Residence

Professors

JOHN E.C. BRIERLEY, B.A. (Bishop's), B.C.L. (McG.), Docteur de l'Université de Paris (Droit)
Macdonald Professor of Law

PAUL-A. CRÉPEAU, Q.C., B.A., L.Ph. (Ott.), LL.L. (Montr.), B.C.L. (Oxon.), Docteur de l'Université de Paris (Droit), LL.D. (Ott.), F.R.S.C.
Wainwright Professor of Law

JOHN W. DURNFORD, B.A., B.C.L. (McG.)
Macdonald Professor of Law

ARMAND de MESTRAL, A.B. (Harv.), B.C.L. (McG.), LL.M. (Harv.)

WILLIAM F. FOSTER, LL.B. (Hons.) (Auck.), LL.M. (U.B.C.) **(on leave)**

H. PATRICK GLENN, B.A. (U.B.C.), LL.B. (Queen's), LL.M. (Harv.), D.E.S., Docteur en droit (Strasbourg)

ETHEL GROFFIER ATALA, Docteur de l'Université Libre de Brux., D.C.L. (McG.)

PIERRE-G. JOBIN, B.A., B.Ph., LL.L. (Laval), Dipl. d'ét. sup. en dr. pr., Docteur en droit (Montpellier)
(on leave 1982)

DAVID L. JOHNSTON, A.B. (Harv.), LL.B. (Cantab. & Queen's), L.L.D. (L.S.U.C.)

STEPHEN A. SCOTT, B.A., B.C.L. (McG.), D. Phil. (Oxon.)

WILLIAM TETLEY, Q.C., B.A. (McG.), LL.L (Laval)

IVAN A. VLASIC, B.C.L. (Zag.), LL.M.(McG.), LL.M., J.S.D. (Yale)

Associate Professors

MARTIN BRADLEY, LL.B.(Mel.), LL.M. (McG.)

MICHAEL G. BRIDGE, LL.B. (L.S.E.), LL.M. (Lond.)

FRANCIS H. BUCKLEY, B.A., LL.B. (McG.), LL.M. (Harv.) **(on leave)**

MADELEINE CANTIN CUMYN, B.A., LL.L. (Laval)

STANLEY COHEN, B.A. (Man.), LL.B. (York), LL.M. (Tor.)

IRWIN COTLER, B.A., B.C.L. (McG.), LL.M. (Yale)

JANE MATTHEWS GLENN, B.A. LL.B. (Queen's), Docteur de l'Université de Strasbourg (Droit)

JULIUS GREY, B.A., B.C.L., M.A. (McG.), B.C.L. (Oxon.)

PETER P.C. HAANAPPEL, B.C.L. (V.U. Adam.), D.E.S.(F.I.E.D.C.), LL.M., D.C.L.(McG.) **(on leave 1983)**

RODERICK MACDONALD, B.A., LL.B. (York), LL.L. (Ott.), LL.M. (Tor.)

YVES-MARIE MORISSETTE, D.E.C., B. Sp. Sc. pol. (U.Q.à M.), LL.L. (Montr.), D.Phil. (Oxon.)

RALPH LLOYD SIMMONDS, LL.B. (W.Australia), LL.M. (Tor.)

RONALD B. SKLAR, B.S.(N.Y.U.), LL.B. (Brooklyn), LL.M. (Northwestern), LL.M. (Yale)

MARGARET A. SOMERVILLE, A.U.A. (Pharm.) (Adelaide), LL.B. (Hons.) (Sydney), D.C.L. (McG.)

Assistant Professors

G. BLAINE BAKER, B.A. LL.B. (W. Ont.), LL.M. (Col.)

SUZANNE M. BIRKS, B.A. (Hons.), LL.B. (Queen's), LL.M. (York)

DAVID STEVENS, B.A., LL.B. (W.Ont.), LL.B. (Cantab.)

TERENCE WADE, LL.B. (Hons.) (Auckland), LL.M. (Dal.)

Teaching Fellow

BARTHA M. KNOPPERS, B.A. (McM.), M.A. (Alta.), LL.B. (McG.), Dipl. D'ét. appr. (Paris), D.L.S. (Cantab.)

Sessional Lecturers

MARTIN BOODMAN, B.C.L., LL.B. (McG.), Docteur de l'Université de Paris (Droit)

ROBERT CARSWELL, B.A., B.C.L. (McG.)

PETER CASEY, B.A. (Loyola), B.C.L. (McG.)

STUART H. COBBETT, B.A., B.C.L. (McG.)

PETER CUMYN, B.A. (McG.), LL.L. (Laval)

ROBERT GODIN, B.A. (Sir G. Wms.), B.C.L. (McG.)

ROY HEENAN, B.A., B.C.L. (McG.)

BRIAN HELLER, B.C.L., LL.B. (McG.)

ROBERT KOURI, B.A. (Bishop's), LL.L. (Sherbr.), M.C.L., D.C.L. (McG.)

JEAN-LOUIS MAGDELÉNAT, Lic. en droit, D.E.S., Docteur en droit (Aix-en-Provence), LL.M., D.C.L. (McG.)

ALLAN A. MASS, B.A., B.C.L., LL.B. (McG.), LL.M. (Montr.)

DANIEL N. METTARLIN, B.A., B.C.L. (McG.)

LUC PLAMONDON, B.A., LL.L. (Montr.)

MICHEL PROULX, B.A., LL.L. (Laval)

ELINORE RICHARDSON, B.A. (McM.), LL.B. (Tor.)

LAZAR SARNA, B.A., B.C.L. (McG.)

RICHARD SHADLEY, B.A., B.C.L. (McG.)

DAVID H. SOHMER, B.A. (Sir G. Wms.), B.Com., B.C.L. (McG.), LL.B. (Dal.)

PANAYOTIS SOLDATOS, Docteur en droit (Paris), Docteur en sciences politiques (Bruxelles)

Honorary Lecturer

CHARLES H. CAHN, M.D., (Tor.), Dipl. Psychiatry (McG.)

1.6 INSTITUTE OF AIR AND SPACE LAW

NICOLAS M. MATTE, O.C., Q.C., LL.M. LL.D. (Bucharest) Docteur de l'Université de Paris (Droit) **Director**

JEAN-LOUIS MAGDÉLENAT, Lic. en Droit, D.E.S., Docteur en Droit (Aix-en-Provence), LL.M., D.C.L. (McG.) **Assistant Director**

Teaching Staff

MARTIN BRADLEY, LL.B. (Mel.), LL.M. (McG.)

PETER P.C. HAANAPPEL, B.C.L. (V.U. Adam.), D.E.S. (F.I.E.D.C.), LL.M., D.C.L. (McG.) **(on leave 1983)**

IVAN A. VLASIC, B.C.L. (Zag.), LL.M. (McG.), LL.M., J.S.D. (Yale)

Auxiliary Professors

GERALD F. FITZGERALD, Q.C., M.A., B.C.L. (U.N.B.), Ph. D. (Ott.) LL.D. (St. Thomas)

JULIAN G. THOMKA-GAZDIK, Q.C., B.C.L., Dr. Pol. Sc., D.C.L. (Pecs.), M.C.L. (McG.)

JAMES J. SMITH, B. Com. (U.B.C.)

Sessional Lecturers

DAVID I. JOHNSTON, B.A. (McG.), B. Sc. (Sir G. Wms.), B.C.L., LL.M. (McG.)

KUO-LEE LI, LL.B. (Taiwan), LL.M. M.L.S. (McG.)

1.7 INSTITUTE OF COMPARATIVE LAW

PAUL-A. CRÉPEAU, Q.C., B.A., L. Ph. (Ott.), LL.L (Montr.), B.C.L. (Oxon.), Docteur de l'Université de Paris (Droit), LL.D. (Ott.), F.R.S.C. **Director**

Teaching Staff

ARMAND de MESTRAL, A.B. (Harv.), B.C.L. (McG.), LL.M. (Harv.) **(on leave)**

H. PATRICK GLENN, B.A. (U.B.C.), LL.B. (Queen's), LL.M. (Harv.), D.E.S., Docteur en droit (Strasbourg)

ETHEL GROFFIER ATALA, Docteur de l'Université Libre de Brux., D.C.L. (McG.)

RALPH LLOYD SIMMONDS, LL.B. (W.Australia), LL.M. (Tor.)

MARGARET A. SOMERVILLE, A.u.A. (Pharm.) (Adelaide), LL.B. (Hons.) (Sydney), D.C.L. (McG.)

WILLIAM TETLEY, Q.C., B.A. (McG.), LL.L. (Laval)

Sessional Lecturers

PETER CUMYN, B.A. (McG.), LL.L. (Laval)

ROBERT KOURI, B.A. (Bishop's), LL.L. (Sherbr.), M.C.L., D.C.L. (McG.)

ELINORE RICHARDSON, B.A. (McM.), LL.B. (Tor.)

PANAYOTIS SOLDATOS, Docteur en droit (Paris), Docteur en sciences politiques (Bruxelles)

1.8 LAW LIBRARY

MICHAEL L. RENSHAWE, B.A., M.L.S., J.D. (Maryland) **Law Area Librarian**

KUO-LEE LI, LL.B. (Taiwan), LL.M. M.L.S. (McG.) **Head, Public Services**

LOUISE ROBERTSON, B.A., M.L.S. (McG.) **Head, Technical Services**

LOUISA PIATTI, B.A. (Montr.), M.L.S. (McG.) **Reference Librarian**

LENORE RAPKIN, B.A. (Syracuse), M.L.S. (McG.) **Cataloguer**

2 THE FACULTY OF LAW GENERAL INFORMATION

2.1 THE FACULTY OF LAW

In the spring of 1848 a group of twenty-three students reading law for the Bar of Quebec petitioned McGill College to grant them formal instruction leading to a degree in law. In consequence of this request the Board of Governors of McGill formally "engrafted" the Faculty of Law on 15 July 1848. William Badgley, who offered lectures in law as early as 1844 in the Faculty of Arts, was appointed the first dean of the Faculty in 1853. McGill may thus lay claim to having Canada's oldest law faculty.

In the early years law teachers were drawn from among prominent Montreal practitioners and judges. Law students worked in law offices while pursuing university studies. Funding for full time university appointments began in the latter part of the century with endowments in the name of Samuel Gale (1783-1865), appointed a judge of the Court of King's Bench in 1834 and Sir William Macdonald (1831-1917), a great benefactor of the University. In the 1920s, when the province's first full time law program for students was instituted, there were only three full time professors, but the Faculty nonetheless had the largest such complement in the country.

Since 1951 the Faculty has been housed in Chancellor Day Hall. The law complex comprises a fine 19th century mansion now known as Old Chancellor Day Hall, a modern six story building erected in 1966-67 containing classrooms and library (financed in large part through the gifts of graduates and other friends of the Faculty), and two further buildings fronting on Peel Street housing the students and staff of the graduate programs. There are thirty members of the full time staff, an undergraduate population of about 500 students and between thirty and fifty graduate students.

The Faculty offers a liberal education in legal principles and theory in Canadian law. It is the only law school in Canada providing English language instruction in Quebec civil law and teaching both the civil law and common law in an integrated three year program leading to either of two degrees, the Bachelor of Civil Law (B.C.L.) or Bachelor of Laws (LL.B.). Upon completion of further requirements, normally within an additional year of residence, the other degree may be obtained. Students may opt, at the end of their first year of study, to pursue a program which will entitle them to be awarded both degrees at the end of four years. These double degree programs, called the National Program, qualify graduates to seek admission to the legal professions throughout Canada and many of the American states.

The establishment of the National Program at McGill in 1968 was made possible by reason of its unique position as Canada's only law school offering civil law instruction in English and because much of the subject matter in a common or civil law curriculum is common to both legal systems. Thus whichever degree they pursue, students share a wide range of "Canadian" law and elective courses. In addition, civil law students take one or more basic civil law subjects and all common law students take a number of basic civil law subjects. Beyond their basic training in the legal system in which they are earning their primary degree, all students, therefore, also receive a serious introduction to the other system. This dual grounding provides a sound basis upon which the completion of the other degree may be achieved.

The Faculty believes that its National Program creates an important link between the civil and common law systems as they obtain in Canada. It promotes the concept of the truly "national lawyer" for which there is need in this country. Whether in law practice, government positions or in other careers, graduates who obtain both degrees experience the value of this dual training and play a greater role in Canadian legal affairs.

The programs of graduate study in law offered within the Institute of Air and Space Law, established in 1951, and the Institute of Comparative Law, established in 1965, are more fully explained elsewhere in this *Announcement.*

2.2 Remarks from the Dean

The study of law is both a professional training and an academic discipline. The objectives and functions of McGill's Faculty of Law, because of its location and tradition, offer special perspectives in both respects.

The Faculty, over its long history, has always provided the professional training which qualifies students to proceed to the legal professions in Quebec and, since 1968, to those in the rest of Canada. Its curriculum, while remaining within its own control, reflects the expectations of the professional corporations. It is constantly under review in order to respond to the present and future needs of legal professionals in Canada, as well as the requirements of those intending to pursue careers in the public and private sectors in which legal training is an asset rather than a formal qualification.

The study of law is more than a professional training. It is also an academic discipline. This has long been acknowledged in the great universities of Europe and North America where the scientific, liberal and independent study of law has found a place. This means that the university is recognized as an appropriate forum to examine the law as an element of social organization, from critical, historical and comparative perspectives. Scholarship in the law is in this sense, as essential an element in the life of the Faculty as its role in the training of professionals. Indeed, the two functions are inseparable.

McGill occupies a unique position among Canadian law faculties in this dual mission of educating future professionals and promoting scholarship. The Faculty, quite naturally in the light of its location, has a long tradition of teaching and scholarship in both the English and the French languages. The staff and students have always been drawn from these two linguistic groups. While English has been the primary language of the Faculty, the use of French in the classroom and as a language in daily life is firmly entrenched. Wilfrid Laurier, when graduating with the B.C.L. degree in 1864, delivered the valedictory address in his mother tongue.

McGill has also long been a meeting ground for Canada's legal traditions, the civil law deriving from the law of France and more remotely from Roman Law, and the English common law. The Faculty's early curriculum vividly demonstrated the richness of Quebec and indeed the Canadian legal heritage when it laid down for study in the 1850s and 1860s, the *Institutes of Justinian, the dominant law of pre-Napoleonic France in the form of the Coutume de Paris* and that monument of late eighteenth century English law, the *Commentaries* of William Blackstone. The contemporary curriculum, whether at the graduate or undergraduate level, is equally challenging and diverse. The writings of staff members over the years, amply demonstrate the breadth of legal scholarship the Faculty has fostered. Its concept of excellence in student achievement is long standing, as the impressive range of scholarships, student awards and prizes makes clear.

The organization in 1968 of the National Program was, therefore, in many ways a logical and natural progression. In terms of both professional and scholarly perspectives, it enables all members of the Faculty community to accede to more than a local or merely parochial view of Canadian law. It offers, moreover, in respect of graduate work, opportunities not found elsewhere in Canada or, indeed, in North America.

2.3 DEGREES

B.C.L. and LL.B.

The degrees granted in the Faculty are the Bachelor of Civil Law (B.C.L.) and Bachelor of Laws (LL.B.).

M.B.A./LAW

A combined M.B.A./Law degree is offered at McGill by the Faculty of Law together with the Faculty of Management. The combined degree program has been designed for those interested in both the legal and administrative aspects of business. The joint program may be completed in four years instead of

the five that would be required if each were taken separately. It is also possible to do both B.C.L. and LL.B. by spending an extra year in the program. For more information, please write for our M.B.A./Law folder.

HIGHER DEGREES

The higher degrees in law are the M.C.L. (Master of Civil Law), the LL.M. (Master of Laws) and the D.C.L. (Doctor of Civil Law). Information concerning these degrees and the Graduate programs relating to them is summarized under the heading "Graduate Programs of Study" (Section 8).

2.4 LIBRARY

The Law Library of the University, located in New Chancellor Day Hall, contains at present a valuable collection of over 120,000 volumes. It includes virtually all Canadian works, and the principal law reports of the United Kingdom and France, as well as a selection of reports from the United States, Commonwealth countries such as Australia and New Zealand and Civil Law jurisdictions such as Belgium and Germany. The generous gifts from graduates and friends of the Faculty contribute significantly to its maintenance as a first class collection.

The Wainwright Collection, comprising the personal library of the French legal historian Olivier Martin, presented to the Faculty in 1959 by the late Arnold Wainwright, Q.C., (1879-1967), B.A. (1899), B.C.L. (1902), D.C.L. (1963), is a particularly fine collection of early editions relating to French law.

The Law Library participates in the Q-L computer Canadian legal data retrieval system.

The Law Library is intended primarily for the use of professors of this Faculty and students registered for courses given in it or in the Institute of Air and Space Law or in the Institute of Comparative Law. Permission for use by other persons desiring to avail themselves of this Library's facilities will depend on the space available and the demands being placed on the Library's resources at the time. Attention is drawn to the necessity for persons not registered at McGill University to register and pay a fee to the University where extensive use of the Library is authorized.

The great value of the Law Library to students and to the profession is self-evident. For these reasons the Faculty expects the full cooperation of all in maintaining the integrity of its collections and in preventing damage to books or their unlawful removal.

Law students also have access to all other collections within the University Library system, in particular the McLennan Library, which houses the main Social Sciences and Humanities collection.

2.5 PUBLIC LECTURES

MEREDITH MEMORIAL LECTURES

In 1949 the Faculty of Law of McGill University began its sponsorhip of a series of lectures known as the Bar Extension Lectures. These were designed to assist in the promotion of continuing legal education for members of the legal profession in the Montreal area. A variety of topics of current interest both to the members of the Bar and the notarial profession have been offered annually since that time. Since 1961 the lectures have been published as The Meredith Memorial Lectures in honour of the late W.C.J. Meredith, Q.C., Dean of the Faculty of Law of McGill University from 1950-1960.

2.6 WAINWRIGHT LECTURES

The Wainwright Lectures were established by the Faculty of Law in 1973 to honour the memory of the late Arnold Wainwright, Q.C. (1879-1967), B.A. (1899), B.C.L. (1902), D.C.L. (1963).

This eminent Canadian advocate who practised for over fifty years at the Bar of the Province of Quebec, had a long association with legal studies at McGill University. He obtained his Bachelor of Civil Law degree in 1902 and was awarded the Elizabeth Torrance Gold Medal and the Macdonald Travelling Scholarship. In 1909 he joined the teaching staff of the Faculty as a part-time Lecturer in Civil Law; in 1921 he was promoted to the rank of Professor. His merits as a teacher of the Civil Law for over twenty-five years were recognized by the University in 1934 when it named him, upon his retirement, Emeritus Professor. The degree of Doctor of Civil Law honoris causa was conferred upon him in 1963.

The bequest of the residue of his estate to McGill University for the use of the Faculty of Law made possible the founding of undergraduate scholarships in law, the enrichment of the Law Library and the inauguration of the Wainwright Lectures. These have been organized to promote the scholarly study of law and, in particular, the Civil Law of Quebec, which always remained, throughout his long and distinguished career, the abiding interest of this generous friend and much valued colleague of the McGill Faculty of Law.

2.7 WAINWRIGHT MEMORIAL LEGAL ESSAY COMPETITION

This competition, of a value of $2500, created to honour the memory of the late Arnold Wainwright, Q.C. (1879-1967), B.A. (1899), B.C.L. (1902), D.C.L. (1963) is designed to promote, through the publication of research, the evolution and influence of the Civil Law, particularly in Canada. It is held every two years. For information concerning the conditions of entry, enquiries should be addressed to The Secretary, Wainwright Trustees, Faculty of Law, McGill University.

2.8 McGILL LAW JOURNAL/ REVUE DE DROIT DE McGILL

The McGill Law Journal/Revue de droit de McGill, founded in 1952, is a professional journal published by students of the Faculty of Law of McGill University. Its purpose is to promote the study of the law in Canada and to help in the understanding of the Civil Law and Common Law systems which exist side by side in this country. It publishes articles in either the French or English languages.

McGill Law Journal/Revue de droit de McGill,
3644 Peel Street,
Montreal, Québec, Canada H3A 1W9
Telephone: (514) 845-8824

2.9 MOOT COURT BOARD

The Moot Court Board is composed of upper year students of the Faculty of Law. It supervises the Faculty's compulsory Moot Court program in first and second year and a number of extra-curricular moots. Ability and capacity determine the selection of members.

In 1979, the Montreal law firm of Ahern, Nuss and Drymer, in memory of its distinguished founder, John Gerard Ahern, Q.C., B.C.L. (1918), who achieved during his long career at the Bar the reputation of being an outstanding advocate and who served as Bâtonnier of the Bar of Montreal and Quebec in 1955-56, established the John G. Ahern, Q.C. Memorial Mooting Fund. This fund, administered by the Dean of the Faculty of Law, in consultation with the Moot Court Board adviser and Chairman of the Moot Court Board, has been set up to assist law students in their mooting activities and, in particular, participation in extra-curricular moots.

2.10 STUDENT ACTIVITIES

THE LAW UNDERGRADUATE SOCIETY

The Law Undergraduate Society is composed of all students in the Faculty of Law pursuing either the LL.B. or B.C.L. degree. Through its council composed of the seven class presidents and heads of various groups and societies within the Faculty, the Society oversees a number of functions and activities affecting the students of the Faculty. Amongst these are included such various undertakings as social affairs and sports, the Association of Women in Law, the program of speakers and many others. The success of these functions and organizations depends fully on active student participation and support, and First year students are strongly encouraged to help with and take part in the carrying out of the various endeavours of the L.U.S.

CAMPUS LEGAL AID CLINIC

The Campus Legal Aid Clinic is a student run service for the McGill University community. Law student staff provide legal counselling and information within the limits of the Quebec Bar Act. Only post-first year students are eligible. For further information: 392-8918, University Centre, 3480 McTavish Street, Room B-46.

MOOTING COMPETITIONS

Students, on a voluntary basis and under the supervision of the Moot Court Board and members of Faculty, may participate in a variety of mooting competitions such as the Philip C. Jessup International Law Moot, the Quebec Bar Prize Moot, the Gale Cup Moot and the Tribunal-École Interfacultaire and occasional student-Faculty Moots.

THE INTERNATIONAL LEGAL FRATERNITY PHI DELTA PHI

The typical fraternity is either an honor society or a social group. A legal fraternity, however, is neither, although it embodies something of each in its dedication to professional excellence and its development of lifelong camaraderie. Phi Delta Phi is the oldest (1869) and largest (70,000 members) legal fraternity in North America, and today has 129 chapters in 4 countries which initiate a yearly total of 3,000 to 4,000 students. The McGill chapter, called Laurier Inn, was founded in April, 1979 and sponsors a variety of social and educational activities.

JOB PLACEMENT

While the Faculty recognizes the importance of student placement, it is impossible at the present time to organize a complete job placement service. Every effort is made however to bring all information relating to employment opportunities received from law firms, corporations, government agencies, public interest groups, etc. to the attention of students within the Faculty. The Faculty cooperates fully with the Job Bank Committee of the Law Undergraduate Society to this end.

BOARD OF STUDENT ADVISERS

Third and fourth year students may apply to serve as student advisers in the Faculty's tutorial program in which first year students are divided into small groups for carrying out written and oral assignments on a weekly basis in legal research, citation and legal writing. Each student adviser works under the supervision of an individual member of the professorial staff who is assigned to the program. Two student advisers acting also as directors of the Board have additional responsibility for preparing in conjunction with the faculty adviser the teaching materials used in the program.

N.B. Senate approval pending at time of publication.

STUDENT BOOKSTORE

The Law Undergraduate Society bookstore is managed and operated by a committee of law students. Required texts, casebooks, reference works

and other materials are sold at very considerable discounts. The store is located in the basement of Old Chancellor Day Hall and is open at the hours posted. The students on the Committee and others who help it during "rush" periods all participate on a volunteer basis. This organizational framework assures that prices are kept to a minimum in the interests of students and for the benefit of the entire community of the Faculty.

3 ADMISSION REQUIREMENTS

3.1 GENERAL

Application forms, which may be obtained by writing to the Faculty, must be completed and submitted by February 1, and be accompanied by an application fee of $15 by certified cheque or money order made payable to McGill University. Although the deadline is February 1, the Faculty may consider applications received as late as March 1, although preference will be given to those meeting the deadline. Applications for admission should be sent to the Admissions Officer, Faculty of Law, McGill University, 3644 Peel Street, Montreal, Quebec H3A 1W9. Students already registered at McGill University at the time of application for admission to the Faculty of Law will not be charged the application fee. Late applications will only be considered under exceptional circumstances. Applicants should forward their transcripts, including those for their final year, as soon as possible. Candidates for admission may be required to be interviewed by the Chairman of the Admissions Committee or another member of the Faculty. In all cases admission is at the discretion of the Faculty.

The courses given in every case anticipate at least two hours of directed study for every hour of lecture. In addition, each candidate is obliged to write the essays, to attend the seminars, to participate in the Moot Court and Group Tutorial programs, and to fulfil whatever other requirements may be set by the Faculty. Candidates are expected to devote their whole time to their legal studies and are prohibited from taking other academic studies during the academic session without prior approval of the Dean or the Dean's delegate.

No students are allowed to be enrolled concurrently in the programs of the Faculty of Law and a professional training program of any Bar, which program consists of a course of lectures and/or period of articling. Where students are found to be in breach of this rule, the Dean may require them to withdraw from the School.

Students entering the Faculty of Law are expected to have a basic knowledge of Canadian government as preparation for the study of public law. Those who have not taken a basic course on Canadian government are strongly advised to read R. MacGregor Dawson, The Government of Canada, and James S.R. Mallory, The Structure of Canadian Government.

3.2 NATIONAL PROGRAM

A student may obtain both the B.C.L. and LL.B. degrees by two distinct routes.

A. *After the First Law Degree*

A candidate who has already obtained the B.C.L. degree or the LL.B. degree (and subject to the time limitation set out below, Section 4.6) is entitled to register for a fourth year in the Faculty for the purpose of obtaining the other degree (LL.B. or B.C.L. as the case may be) by completing an additional 30 credits.

In order to be eligible to proceed to the LL.B. degree, the holder of the B.C.L. degree must have taken, and passed, during the B.C.L. program, Property IA and IIA, and Contracts I.

Likewise, the holder of an LL.B. degree desiring to proceed to the B.C.L., must have taken, and passed during the LL.B. program, Obligations I and II and Property I.

In obtaining the number of credits required for their second degree, candidates must take and pass all the courses listed in Section 6 ("Undergraduate Programs of Study").

The remaining required credits are obtained by completing whatever other elective courses candidates select, subject to the requirement that they obtain the credits allotted to courses that are indicated as prerequisites; this latter rule also applies to obligatory courses.

B. *The Joint Program*

Candidates who have successfully completed their first year of either the B.C.L. or LL.B. program may opt when registering for their second year to pursue both the B.C.L. and LL.B. degrees jointly, and on obtaining 125 credits, and after spending at least four years in residence in the Faculty, shall be granted both degrees jointly. Should candidates wish to terminate their studies after having completed 95 credits and 3 years of residence in the Faculty only, they may withdraw from the National Program and receive the degree for which they were originally admitted to the Faculty, provided they have obtained credits for all the courses required for that degree. Notice of withdrawal must be given to the Associate Dean (Academic) prior to 31 March.

In obtaining the 125 credits required for the Joint Degree Program, a candidate must take and pass all courses listed in both parts of Section 6.1 and those courses listed in that part of Section 6.2 appli-

cable to the degree other than the degree for which the candidate was initially registered.

The remaining required credits are obtained by completing whatever other options the candidate selects, subject to the requirement that he has obtained the credits allotted to courses that are indicated as prerequisites; this latter rule also applies to obligatory courses.

3.3 B.C.L. and LL.B. DEGREES

One of the primary qualifications for admission to either the B.C.L. or the LL.B. program is the attainment with a second class standing of a B.A. or an equivalent degree from a university or college which is recognized by McGill University. Candidates holding a diploma of collegial studies with a high standing from a Québec College of General and Vocational Education (CEGEP) are also eligible for admission. However, because of the requirements of the bars of the common law provinces, candidates holding only a CEGEP diploma cannot be admitted directly into the common law (LL.B.) program: see Sections 9.2 and 9.3 of this Announcement, Admission to the Legal Profession. In exceptional cases, candidates with lesser academic qualifications may be admitted to the Faculty if they are qualified to pursue with advantage the study of law.

Please refer to Section 9 for admission to the legal profession. The attention of candidates holding CEGEP diplomas is drawn to the fact that admission to the Bars of the other Provinces may require additional years of pre-law university education. In particular, the Law Society of Upper Canada (Ontario) requires an additional pre-law university year for those holding CEGEP diplomas.

The Faculty may admit a limited number of suitable persons, no matter what their academic qualifications, to attend selected courses of lectures. Such permission will only be granted to applicants who satisfy the Faculty of their capacity to undertake with advantage the study of law. They will not be allowed to proceed to a degree, but will be entitled to receive a certificate specifying the course or courses which they have successfully pursued and the grade which they have obtained.

3.4 LANGUAGE REQUIREMENTS

Candidates, whether for the degree of Bachelor of Civil Law (B.C.L.) or for the degree of Bachelor of Laws (LL.B.) are expected to have substantial fluency in both the French and English languages.

Candidates will be required to read in both languages and examinations may contain extracts in either French or English. One or more French language, optional civil law courses or basic civil law courses in other than the first year are generally offered by the Faculty.

Examinations, term papers and essays may be written either in English or French. Participation in Moot Courts may also be in either language. Examination questions are set in the language in which the course is given.

The attention of candidates intending to proceed to the Bar of Quebec or the Chamber of Notaries is drawn especially to Section 9 of this Announcement.

3.5 ADVANCED STANDING

Applicants for advanced standing must submit, in addition to the Faculty of Law application form and official undergraduate transcripts, official transcripts of their standing in another Faculty of Law. In all cases candidates proposing to apply for transfer from other law Faculties are required to remain in residence for a minimum of two years at the University for the obtaining of a B.C.L., or LL.B. degree.

3.6 VISITING STUDENTS (Letters of Permission)

Students wishing to spend a year or less in the Faculty upon a letter of permission from their home universities should apply to the Associate Dean (Academic) of the Faculty of Law at McGill. The Faculty endeavours to accommodate qualified students who are in good standing in their own faculties, where student numbers at McGill permit.

3.7 TIME LIMITATION

No candidates shall be eligible for any degree or degrees granted by the Faculty unless they complete the required number of credits for the same within five years of their first registration in first year.

Under special circumstances, candidates who have interrupted their studies after having completed at least 30 credits arising out of courses given in this Faculty may be permitted by the Dean or the Dean's delegate, upon recommendation of the Admissions Committee, to continue their studies. In such event, the period of interruption shall not be included in the calculation of the five-year period.

4 FACULTY ACADEMIC REGULATIONS

The Faculty of Law operates under a credit system as laid down in the Faculty Academic Regulations contained in the Faculty of Law Handbook which is given to all students upon registration. The Handbook contains the detailed Regulations for the B.C.L. and LL.B. degrees and the National Program.

CHANGES IN REGULATIONS

This Announcement and the Faculty Academic Regulations in force govern students registered in the Faculty of Law during the 1982-83 academic year. Students are advised that they will be subject to changes made therein as published from time to time within the Faculty before the time of their fall registration.

These Regulations and all others under which the curriculum is administered are subject to change at any time.

5 UNDERGRADUATE PROGRAMS OF STUDY

5.1 The Bachelor of Civil Law or Bachelor of Laws as a first degree.

PART I: B.C.L. DEGREE

The Faculty grants a Bachelor of Civil Law degree to candidates who have successfully completed 95 credits as follows:

1. National Law Courses

		Credits
491-101	Constitutional Law I	6
491-111	Criminal Law I	3
492-116	Foundations of Canadian Law	3
471-316	Private International Law I	3
476-187	Tutorials I	2
476-185	Mooting I	1
476-186	Mooting II	1

2. Civil Law courses

472-141	Obligations I	4
472-142	Obligations II	4
473-144	Property I	3
473-145	Property II	3
472-119	Judicial Law	3
475-273	Family Law I	3

and, in addition, courses making a minimum of 11 credits from among the following:

473-255	Successions	3
472-145	Special Contracts	4
389-522	Contemporary Civil Problems	2
473-456	Family Law II	2
483-453	Financing Real Estate Transactions	2
494-461	Insurance	2
472-425	Judicial Law & Evidence	3
475-479	Obligations IV	2

and such other courses as may be designated for this purpose by the Dean or his delegate.

3. Common Law courses

one of the following:

482-142	Contracts I	6
OR		
483-146	Property IA	4
AND		
483-149	Property IIA	2

4. Elective Courses

Such elective courses as are offered within the Faculty in order to complete the 95 credits requirement.

PART II: LL.B. DEGREE

The Faculty grants a Bachelor of Laws degree to candidates who have successfully completed 95 credits as follows:

1. National Law courses

		Credits
491-101	Constitutional Law I	6
491-111	Criminal Law I	3
492-116	Foundations of Canadian Law	3
476-187	Tutorials I	2
476-185	Mooting I	1
476-186	Mooting II	1

2. Common Law courses

482-142	Contracts I	6
485-179	Torts I	5
483-146	Property IA	4
483-149	Property IIA	2
482-236	Civil Procedure IIA	3

and, in addition, courses making a minimum of 15 credits from among the following:

494-462	Commercial Transactions	4
482-418	Evidence IA	3
485-472	Family Law IA	3
471-316	Private International Law	3
483-148	Property IIIA	2
483-456	Property IVA	2
483-451	Real Estate Transactions	3
482-434	Remedies	3
483-435	Restitution	3
483-449	Trusts & Gifts I	5

and such other courses as may be designated for this purpose by the Dean or his delegate.

3. Civil Law courses

472-141	Obligations I	4
472-142	Obligations II	4
473-144	Property I	3

4. Elective Courses

Such elective courses as are offered within the Faculty in order to complete the 95 credits requirement.

5.2 The Bachelor of Laws or the Bachelor of Civil Law as a second degree and the National Program (Double Degree)

PART I: LL.B. DEGREE (AFTER B.C.L.)

In order to gain admission, the holder of a B.C.L. degree must have taken and passed, during the B.C.L. program, Property IA and IIA and Contracts I. The Faculty grants a Bachelor of Laws degree to such candidates who complete an additional 30 credits as follows:

485-179	Torts	5
482-236	Civil Procedure IIA	3

and courses making a minimum of 15 credits from among the following:

482-434	Remedies	3
483-148	Property IIIA	2
483-449	Trusts & Gifts I	2
483-451	Real Estate Transactions	3

482-418	Evidence IA	3
483-456	Property IVA	4
483-435	Restitution	3
494-462	Commercial Transactions	4
485-472	Family Law IA*	3
471-316	Private International Law	3

and such other courses as may be designated for this purpose by the Dean or his delegate and such elective courses as are offered in order to complete the 30 credits requirement.

* Students proceeding to obtain an LL.B. degree as a second degree and having passed Family Law I may not take Family IA to fulfill these requirements.

PART 2: B.C.L. DEGREE (AFTER LL.B.)

In order to gain admission, the holder of an LL.B. degree must have taken and passed, during his LL.B. program, Obligations I and II and Property I. The Faculty grants a Bachelor of Civil Law degree to such candidates who complete an additional 30 credits as follows:

475-273	Family Law I*	3
472-119	Judicial Law	3
471-316	Private International Law	3
473-145	Property II	3

and courses making a minimum of 11 credits from among the following:

473-456	Family Law II	2
473-255	Successions	3
472-425	Judicial Law & Evidence	3
472-145	Special Contracts	4
389-552	Contemporary Civil Law Problems	2
483-453	Financing Real Estate Transactions	2
494-461	Insurance	3
475-479	Obligations IV	2

and such other courses as may be designated for this purpose by the Dean or his delegate and such elective courses as are offered in order to complete the 30 credits requirement.

* Students proceeding to obtain a B.C.L. degree as a second degree and having passed Family Law IA may not take Family Law I to fulfill these requirements.

5.3 Course Sequence as to Year

While the Faculty offers a curriculum composed primarily of optional courses it is necessary, in order to accommodate prerequisites, facilitate time-tabling, and organize an examination schedule, to establish a course sequence. Students wishing to vary the pattern set out below must obtain the permission of the Associate Dean.

PART I: B.C.L. DEGREE

The first year of studies for the B.C.L. degree, is composed exclusively of the following obligatory courses: Foundations of Canadian Law, Constitutional Law, Criminal Law I, Tutorials I, Mooting I, Obligations I, Obligations II, Property I, Family Law I and Judicial Law.

In addition to Property II and Mooting II which are obligatory, the following courses should be taken, if at all, in a student's second year: Business Associations I, Taxation I, Labour Law I, Criminal Law II, Special Contracts, and Successions.

In addition to Private International Law I, which is obligatory, the following courses should be taken, if at all, in a student's third year: Banking and Negotiable Instruments, Bankruptcy, Administrative Law, Municipal Law, Land Use Planning, Civil Liberties, and Judicial Law and Evidence.

PART II: LL.B. DEGREE

The first year of studies for the LL.B. degree is composed exclusively of the following obligatory courses: Foundations of Canadian Law, Constitutional Law, Criminal Law I, Tutorials I, Mooting I, Contracts, Property IA, Property IIA, and Torts.

In addition to Civil Procedure IIA, Mooting II, Obligations I and Obligations II which are obligatory, the following courses should be taken, if at all, in a student's second year: Business Associations I, Trusts and Gifts I.

In addition to Property I, which is obligatory, the following courses should be taken, if at all, in a student's third year: Evidence IA, Administrative Law.

PART III: NATIONAL PROGRAM

For B.C.L. entrants it is recommended in addition to those courses already listed, that Contracts I be taken in second year and that Property IA and Property IIA be taken in third year.

For LL.B. entrants it is recommended, in addition to those courses already listed, that Judicial Law I and Property II be taken in third year.

6 COURSES OF INSTRUCTION

6.1 REGULAR COURSES

The following courses are regularly offered by the Faculty. More detailed information on course content, course sections, the availability of French language sections, instructors and mode of evaluation is provided at the close of each academic year upon early course selection for the next academic session.

It should be noted that the courses and seminars sponsored by the Institute of Comparative Law open to undergraduate students in the Faculty are included in this list. Enrolment in them may however be limited on the basis of restricted numbers or academic record. Students may also enrol in certain courses offered by the Institute of Air and Space Law (see section 7.2) with the permission of the Director of the Institute and of the Associate Dean.

The following abbreviations are used after course titles: B.C.L. (civil law course); LL.B. (common law course); C.L.C. ("Comparative Law" course); I.C.L. (Institute of Comparative Law course). These designations are relevant to the degree requirements as more fully explained in the Faculty of Law Handbook.

491-401 ADMINISTRATIVE LAW I. (B.C.L. & LL.B.) (3 credits). The relationship between law and the administrative process; problems of delegation; procedures and powers of administrative tribunals; judicial and legislative control of administrative action.

491-407 AIR AND SPACE LAW. (B.C.L. & LL.B.) (2 credits). The legal regime of air space and outer space, review of the more important activities in these environments, including international flights, and their legal regulation. Administrative and private air law in Canada.

494-465 BANKING AND NEGOTIABLE INSTRUMENTS. (B.C.L. & LL.B.) (2 credits). Canadian law of negotiable instruments, with particular emphasis on the Bills of Exchange Act. The concept and attributes of negotiability. Bills of exchange, cheques, and promissory notes. Banker and customer; banker's security; letters of credit; credit cards and other recent developments. The relationship of federal and provincial laws.

493-435 BANKRUPTCY AND INSOLVENCY. (B.C.L. & LL.B.) (2 credits). Bankruptcy and insolvency in Canadian law. Scope, operation and content of the relevant federal and provincial laws, with particular emphasis on the Bankruptcy Act, Winding-up Acts, related statutes and the general provincial law. Creditors' rights.

494-365 BUSINESS ASSOCIATIONS I. (B.C.L. & LL.B.) (4 credits). Following an introduction to agency or mandate, partnership and co-operatives, the course will examine the nature of corporate personality; the two systems of incorporation; constitutional problems; the raising and maintenance of a company's capital; the organs of the company; and protection of investors and minority shareholders.

491-409 CIVIL LIBERTIES IN CANADA. (B.C.L. & LL.B.) (2 credits). The "condition" of civil liberties in Canada, with particular reference to the laws of Quebec and Ontario and the historical development and status of civil liberties in Canadian constitutional law. Among the subjects to be treated are language and educational rights.

482-236 CIVIL PROCEDURE IIA. (LL.B.) (3 credits). Common law historical development of the rules of procedure and forms of action; traditional common law remedies; pleadings, motions and discovery; forms of trial and methods of proof; rules and organization of the courts, jurisdiction and judgements. Emphasis on Ontario Judicature Act and Rules of Practice.

494-462 COMMERCIAL TRANSACTIONS. (LL.B.) (4 credits). Sale of goods and secured transactions in common law Canada. *Prerequisites:* Contracts I and Property IIA.

389-570 COMPARATIVE AND INTERNATIONAL PROTECTION OF MINORITIES' RIGHTS. (I.C.L. - C.L.C.) (2 credits). For details, see Section 7. This is a graduate course open to undergraduates as a "Comparative Law Course".

389-550 COMPARATIVE CIVIL LIABILITY. (I.C.L. - C.L.C.) (2 credits). For details, see Section 7. This is a graduate course open to undergraduates as a "Comparative Law" course. *Prerequisites:* Obligations I and Obligations II or Contracts I and Torts I.

389-530 COMPARATIVE COMPANY LAW. (I.C.L. - C.L.C.) (2 credits). For details, see Section 7. This is a graduate course open to undergraduates as a "Comparative Law" course. *Prerequisite:* Business Associations I.

389-551 COMPARATIVE MEDICAL LAW. (I.C.L. - C.L.C.) (2 credits). For details, see Section 7. This is a graduate course open to undergraduates as a "Comparative Law" course. *Prerequisites:* Obligations I & II or Contracts I and Torts I.

491-101 CONSTITUTIONAL LAW I. (B.C.L. & LL.B.) (6 credits). A comprehensive treatment of the theory, law and practice of the constitution, including legislative, executive and judicial institutions in Canada. The rule of law in executive government and in the lawmaking process. Parliamentary sovereignty, constitutional amendment, and the federal system.

491-202 CONSTITUTIONAL LAW II (ADVANCED SEMINAR). (B.C.L. & LL.B.) (2 credits). A seminar designed to provide an opportunity to study selected problems in constitutional law in Canada or in other countries.

485-483 CONSUMER LAW. (B.C.L. & LL.B. - C.L.C.) (3 credits). A comparative study of civil and common law and consumer protection law in Quebec and in Canada. This is a "Comparative Law" course. *Prerequisites:* Special Contracts or Commercial Transactions.

389-552 CONTEMPORARY CIVIL LAW PROBLEMS. (I.C.L. - C.L.C.) (2 credits). A graduate research seminar dealing with selected contemporary problems in the main private law institutions, particularly in the light of the Quebec Civil Code Revision Report and recent legislative enactments. Comparative law studies will be encouraged. This course is open to third and fourth year undergraduates as a "Comparative Law" course.

482-142 CONTRACTS I. (LL.B.) (6 credits). A study of the general theory and basic principles of the common law of contract in Canada — offer and acceptance, consideration, intent to create legal relations, privity and terms; standard form contracts, mistake, misrepresentation and discharge.

494-464 CORPORATE FINANCE. (B.C.L. & LL.B.) (3 credits). The course will examine selected problems in the area of corporate finance, including such topics as the rights of senior security holders; maintenance of capital; mergers and merger accounting and insider trading. *Prerequisite:* Business Associations I. It is recommended that students have taken an accounting course.

491-111 CRIMINAL LAW I. (B.C.L. & LL.B.) (3 credits). The exploration of major problems in criminal law and its administration; emphasis on basic concepts which govern the implementation of the Criminal Code in Canada.

491-422 CRIMINAL LAW II. (B.C.L. & LL.B.) (3 credits). Principles of the law of criminal evidence and procedure. *Prerequisite:* Criminal Law I.

491-421 CRIMINAL LAW IV (ADVANCED CRIMINAL LAW). (B.C.L. & LL.B.) (3 credits). This course will deal with specific crimes and defenses, and problems in procedure, as a continuation of Criminal Law I and II. Selected topics will be announced in advance. *Prerequisites:* Criminal Law I (and preferably Criminal Law II). Enrolment may be limited.

495-471 ENVIRONMENT AND THE LAW. (B.C.L. & LL.B.) (2 credits). A seminar devoted to the actual and potential role of the law in protecting the integrity of the human environment from threats posed by scientific and technological advances, rapid industrialization and population growth. Emphasis on air, water and sea pollution; nuclear hazards; weather modification.

496-491/499 ESSAYS. (B.C.L. & LL.B.) (2 or 4 credits). Students who have completed two terms in the Faculty may elect with the permission of the Dean or his delegate to write an essay for credit. Candidates must file an application prior to the end of the first week of term in which they propose to submit the essay and must file the completed essay by the last day of classes in that term.

496-491A THIRD TERM ESSAY. 2 credits

496-492B FOURTH TERM ESSAY. 2 credits

496-497D SECOND YEAR ESSAY. 4 credits

496-493A FIFTH TERM ESSAY. 2 credits

496-494B SIXTH TERM ESSAY. 2 credits

496-498D THIRD YEAR ESSAY. 4 credits

496-495A SEVENTH TERM ESSAY. 2 credits

496-496B EIGHTH TERM ESSAY. 2 credits

496-499D FOURTH YEAR ESSAY. 4 credits

389-536 EUROPEAN COMMUNITY LAW I. (I.C.L. - C.L.C.) (3 credits). For details, see Section 7. This is a graduate course open to undergraduates as "Comparative Law" course.

389-537B EUROPEAN COMMUNITY LAW II. (I.C.L. - C.L.C.) (2 credits). For details, see Section

7. This is a graduate course open to undergraduates as a "Comparative Law Course".

482-418 EVIDENCE IA. (LL.B.) (3 credits). The development of Common Law principles of civil and criminal evidence and relevant policy considerations. Stress will be placed on such areas as relevancy and admissibility; hearsay rule; advocacy and trial tactics; function of judge and jury; relationship of rules of evidence to problems of deception, perception and memory; credibility.

482-419 EVIDENCE IIA (ADVANCED EVIDENCE) (LL.B.) (2 credits). A workshop course in which students will present evidence through witnesses (other students in the class and, perhaps, in the case of experts, outsiders) before a judge (the instructor). Each student-lawyer will argue points of law and submit legal memoranda on the admissibility of items of evidence and act as lawyer and witness at least one time. Evidentiary areas of concentration will be hearsay, impeachment of witnesses and expert psychiatric testimony. Prerequisite: Evidence IA

475-273 FAMILY LAW I. (B.C.L.) (3 credits). The study of Quebec law in relation to the existence and attributes of physical persons, their capacity and incapacity by reason of age, relationship and mental faculties; the family; husband and wife; the law of marriage; its formation and its effects, especially with respect to the rights and duties of the consorts and their property; separation, the annulment of marriage and divorce.

473-456 FAMILY LAW II (MATRIMONIAL PROPERTY LAW). (B.C.L.) (2 credits). The effect of marriage on the property rights of married persons, and their relations with third persons; the matrimonial regimes of the Quebec Civil code. *Prerequisites:* Family Law I or Family Law IA and Property I.

485-472 FAMILY LAW IA (LL.B.) (3 credits). Marriage and divorce; the matrimonial property regime of the common law provinces; parent and child; guardian and ward; intestate succession and dependents' relief.

483-453 FINANCING REAL ESTATE TRANSACTIONS. (B.C.L.) (2 credits). Particular emphasis will be placed on the protection to be given the hypothecary creditor, the methods of financing land acquisition and development; the special problems related to the financing of construction projects; the development of the emphyteutic lease and the net lease as a form of finance, the role of the lawyer in giving economic advice to his clients. *Prerequisites:* Property I & II.

492-116 FOUNDATIONS OF CANADIAN LAW. (B.C.L. & LL.B.) (3 credits). An introduction to the institutional and philosophical foundations of Canada's two legal systems, with emphasis on some basic principles of Canadian public law.

495-487 GOVERNMENT CONTROL OF BUSINESS. (B.C.L. & LL.B.) (3 credits). A seminar in selected topics in government control and regulation of business. Emphasis will be given to competition law and policy and to regulatory devices which involve direct control over price, output, and entry decisions of firms. Other topics will include government enterprise and specific programs to promote and protect Canadian enterprise.

494-461 INSURANCE. (B.C.L. - C.L.C.) (3 credits). This course deals with the general principles of the insurance contract under the law of Quebec, with reference to the Ontario Insurance Act and the insurance acts of other common law provinces.

494-463B INTELLECTUAL AND INDUSTRIAL PROPERTY. (B.C.L. & LL.B.) (2 credits). An introduction to the law of patents, trade marks, copyright, industrial design and unfair competition designed to provide a practical familiarity with the principles and practice of the law in this area of growing commercial importance.

389-541 INTERNATIONAL BUSINESS ENTERPRISES. (I.C.L. - C.L.C.) (2 credits). For details, see Section 7. This is a graduate course open to undergraduates as a "Comparative Law" course. *Prerequisite:* Comparative Company Law.

389-531 INTERNATIONAL BUSINESS TRANSACTIONS I. (I.C.L. - C.L.C.) (2 credits). For details, see Section 7. This is a graduate course open to undergraduates as a "Comparative Law" course.

389-532 INTERNATIONAL BUSINESS TRANSACTIONS II (LAW OF FOREIGN INVESTMENT). (I.C.L. - C.L.C.) (2 credits). For details, see Section 7. This is a graduate course open to undergraduates as a "Comparative Law" course. *Prerequisite:* International Business Transactions I.

389-539 INTERNATIONAL TAXATION. (I.C.L. - C.L.C.) (2 credits). For details, see Section 7. This is a graduate course open to undergraduates as a "Comparative Law" course. *Prerequisite:* Taxation I.

389-520 INTRODUCTION TO COMPARATIVE LAW. (I.C.L. - C.L.C.) (2 credits). For details, see Section 7. This is a graduate course open to undergraduates as a "Comparative Law" course.

472-119 JUDICIAL LAW. (B.C.L.) (3 credits). A general introduction to the Canadian judicial system, civil procedure in Quebec (up to but excluding trial) and evidence.

472-425 JUDICIAL LAW & EVIDENCE. (B.C.L.) (3 credits). Trial before the Court, from inscription to judgment. Proof and hearing; the principles of the law of evidence with emphasis on substantive rules in civil law. Special proceedings relating to the production of evidence. Declaratory judgments. Provisional remedies, including injunctions. Remedies against judgments. *Prerequisite:* Judicial Law or Civil Procedure IIA.

492-421 JURISPRUDENCE I. (B.C.L. & LL.B.) (3 credits). An examination of the legal process from the perspective of existential humanism. Issues such as the relationship between law and morals, the choice of a codified or non-codified system, literal vs. purposive interpretation of statutes, and civil disobedience will be discussed. A background in philosophy is not necessary. Evaluation will be by way of "research examination" (i.e. a research topic remitted to students during term to be written up in a final examination).

495-369 LABOUR LAW I. (B.C.L. & LL.B.) (3 credits). An introduction to Canadian labour law including collective bargaining, arbitration and industrial relations generally. Emphasis on the Canada Labour Code, the Quebec Labour Code and related statutes.

495-470 LABOUR LAW II. (B.C.L. & LL.B.) (2 credits). Special problems in the development of labour law in Quebec and Canada. *Prerequisite:* Labour Law I.

483-145 LAND USE PLANNING. (B.C.L. & LL.B.) (2 credits). A comparative study of private and public control of land use and development, involving master plans, zoning bylaws, subdivision control, urban re-development, expropriation, and regional planning. *Prerequisites:* Property IA or Property I and II (plus preferably Administrative Law I).

495-482 LAW AND POVERTY (SOCIAL WELFARE LAW). (B.C.L. & LL.B.) (3 credits). The differential character of the law concerning rich and poor as reflected in case studies in criminal law, consumer law, housing law, welfare law. The "delivery systems" available for legal services to the poor and alternative organizational models for legal services; the role of law schools, government and the professional bar.

491-419 LAW AND PSYCHIATRY. (B.C.L. & LL.B.) (3 credits). The roles of lawyers and psychiatrists in the handling of the mentally ill within the legal process. Detailed consideration of the civil commitment and criminal commitment processes, insanity and "automatism" defences, the psychiatrist as expert witness, mental illness as a problem in relation to legal capacity. Some sessions will be conducted jointly with members of the psychiatric profession. Open to a limited number of students in Law, Psychiatry and Psychology.

494-460 MARITIME LAW I. (B.C.L. & LL.B. - C.L.C.) (2 credits). A comparative study of private international Maritime Law with particular reference to the contract of carriage by sea. Bills of lading under the Hague Rules, the Visby Rules and Uncitral Rules; charterparties, general average and collision. This is a "Comparative Law" course.

389-553 MARITIME LAW II (INTERNATIONAL CONVENTIONS). (I.C.L. - C.L.C.) (2 credits). For details, see Section 7. This is a graduate course open to undergraduates as a "Comparative Law" course. *Prerequisite:* Maritime Law I or equivalent.

476-185B MOOTING I (B.C.L. & LL.B.) (1 credit) First year students are required to participate in the Faculty's Moot Court Program organized by the student-run Moot Court Board which functions under Faculty supervision. In first year each Moot is judged by a member of the Board and a member of the Bar.

476-186A MOOTING II (B.C.L. & LL.B.) (1 credit) Second year students are required to participate in the Faculty's Moot Court Program organized by the student-run Moot Court Board which functions under Faculty supervision. In second year each Moot is judged by a member of the Board, a member of the Bar and a professor.

491-403 MUNICIPAL LAW. (B.C.L. & LL.B.) (2 credits). Municipal institutions in the Province of Quebec and their constitution and powers. Judicial review of the acts of municipal authorities and officers in the general context of administrative law. Juridical nullity and other problems. Municipal taxation. Civil responsibility. *Prerequisite:* Administrative Law is desirable but not essential.

472-141 OBLIGATIONS I. (B.C.L.) (4 credits). Introduction to the Quebec Civil Law of obligations, including the distinction between civil and commercial matters, sources of obligations and contractual obligations. Obligations I and II must be taken in the same academic year.

472-142 OBLIGATIONS II. (B.C.L.) (4 credits). Sources of obligations in Quebec Civil Law: legal obligations. Protection of creditors' rights. Civil Responsibility. Modalities of obligations and modes of extinction of obligations. Obligations I and II must be taken in the same academic year. *Prerequisite:* Obligations I.

475-479 OBLIGATIONS IV (MODALITIES AND EXTINCTION OF OBLIGATIONS). (B.C.L.) (2 credits). Detailed consideration of the modalities of obligations in Quebec Civil Law: joint and several, conditional and alternative obligations; terms, penal clauses. Extinction: payment, release, confusion, novation and delegation of payment, compensation, frustration. *Prerequisite:* Obligations I & II.

471-316 PRIVATE INTERNATIONAL LAW I (CONFLICT OF LAWS). (B.C.L. & LL.B. - C.L.C.) (3 credits). The function, nature and sources of Private International Law. Conflicts of laws; formulation and development of conflict rules; interpretation of conflict rules (characterization, incidental questions, renvoi, conflits mobiles); operation of conflict rules (application of foreign law, substitution of the laws of the forum). Conflicts of jurisdiction and recognition of foreign judgments. This is a "Comparative Law" course.

473-144 PROPERTY I. (B.C.L.) (3 credits). The concepts of property, ownership and possession,

and rights in property, the land titles registration system, in the law of Quebec.

473-145 PROPERTY II. (B.C.L.) (3 credits). The concepts in Quebec law of patrimony and security on property, moveable and immoveable; elements of the land titles registration system; hypothecs, privileges, pledge, with some consideration given to statutory securities on property. *Prerequisite:* Property I.

472-418 PROPERTY III. (B.C.L.) (2 credits). The nature and effects of extinctive and positive prescription as contained in the Quebec Civil Code and other Quebec legislation.

483-146 PROPERTY IA. (LL.B.) (4 credits). Common law concepts of ownership and the doctrine of estates; including interests of husband and wife, uses and Statute of Uses with an outline of trusts and settlements, concurrent ownership, future interests, and perpetuities, adverse possession. Commercial land law; easements and profits, restrictive covenants, licences, mortgages, landlord and tenant, fixtures.

483-149 PROPERTY IIA. (LL.B.) (2 credits). The basic common law principles of moveable property; ownership and possession; the acquisition and termination of ownership; gifts, bailments, sale of goods, security devices and non-consensual liens.

483-148 PROPERTY IIIA (LANDLORD AND TENANT). (LL.B.) (2 credits). An examination of the relationship in common law of landlord and tenant and of current problems affecting residential tenancies. *Prerequisite:* Property IA.

483-456 PROPERTY IVA (WILLS AND ESTATES). (LL.B.) (3 credits). Formal and intrinsic validity of domestic and international wills; survivorship; the administration of estates; methods of transmitting property on death other than by will; intestate succession; dependants' relief and relevant aspects of family property law in general at common law. *Prerequisite:* First term of Trusts & Gifts I.

491-105 PUBLIC INTERNATIONAL LAW I. (B.C.L. & LL.B.) (3 credits). The traditional fields of International Law including nature and sources; recognition, territory and acquisition of territory; jurisdiction on the high seas; nationality; diplomatic and consular privileges and immunities; responsibility of states; interpretation of treaties; legal control of force and aspects of the U.N. Charter, special Canadian problems of International Law.

491-406 PUBLIC INTERNATIONAL LAW II (PROBLEMS OF MODERN INTERNATIONAL LAW: THEORY AND PRACTICE). (B.C.L. & LL.B.) (2 credits). Selected problems to be announced in advance. *Prerequisite:* Public International Law I.

492-438 PUBLIC INTERNATIONAL LAW III (LAW OF THE SEA). B.C.L. & LL.B.) (2 credits). The development of Canadian law and policy on the law of the sea in recent years. The dynamic relationship between domestic and international law in this field. *Prerequisite:* Public International Law I.

491-404 PUBLIC INTERNATIONAL LAW IV (INTERNATIONAL LAW OF HUMAN RIGHTS). (B.C.L. & LL.B.) (2 credits). International protection of human rights, particularly by the United Nations, its Specialized Agencies and the Council of Europe. Topics include the U.N. Charter, the Universal Declaration of Human Rights, the two covenants and other treaties, humanitarian intervention, diplomatic protection of foreigners, the protection of minorities, freedom of information, the status of women, self-determination.

491-405 PUBLIC INTERNATIONAL LAW V (INTERNATIONAL LAW OF HUMAN RIGHTS). (B.C.L. & LL.B.) (2 credits). A seminar dealing with approximately the same subjects as Public International Law IV in which students write a term paper and lead class discussion. Public International IV is recommended as a prerequisite.

491-408 PUBLIC INTERNATIONAL LAW VI (ARMS RACE AND THE INTERNATIONAL LEGAL ORDER). (B.C.L. & LL.B.) (2 credits). Origin and causes of the arms race and its social and economic consequences; the arms race as a worldwide phenomenon; the nature of modern strategic weapons; major multilateral and bilateral arms control agreements (including SALT I and II); the process of negotiating agreements; Canada's participation in the arms limitation process; role of the United Nations; effect of the arms competition on the international legal order. *Prerequisite:* Public International Law I.

483-451 REAL ESTATE TRANSACTIONS. (LL.B.) (3 credits). Problems arising out of the vendor and purchaser relationship. The contract of sale in its drafting, interpretation and enforcement; fixtures, recording and land titles systems; mortgages. Particular emphasis upon the law of Ontario. *Prerequisites:* Property IA and Contracts I.

482-434 REMEDIES. (LL.B.) (3 credits). A study of selected private law remedies available at common law, in equity and under statute. *Prerequisites:* Contracts I (and preferably Property IA, Torts I and Trusts & Gifts I).

389-533 RESOLUTION OF INTERNATIONAL DISPUTES. (I.C.L. - C.L.C.) (3 credits). For details, see Section 7. This is a graduate course open to undergraduates as a "Comparative Law" course.

483-435 RESTITUTION. (LL.B.) (3 credits). The law relating to the restitution of benefits wrongfully or unfairly acquired: a study of unjust enrichment as a doctrinal basis for various remedies at common law, in equity and under statute and the role of restitution as an integral part of the common law alongside contract and tort. Some attention will be given to "l'enrichissement sans cause" in civil law.

Prerequisites: Contracts I (and preferably Trusts & Gifts I and Remedies).

472-145 SPECIAL CONTRACTS. (B.C.L.) (4 credits). The contracts of sale, lease of things and enterprise, and some other special contracts, in the law of Quebec. *Prerequisite:* Obligations I.

473-255 SUCCESSIONS. (B.C.L.) (3 credits). The gratuitous transmission of property in the law of Quebec by reason of gift, will, trust or legal succession. *Prerequisites:* Obligations I & II or Property I.

491-313 TAXATION I. (B.C.L. & LL.B.) (4 credits). The general principles of Canadian income tax law. The emphasis is on federal, personal and corporation tax with some reference to Quebec income tax law.

493-414 TAXATION III (ESTATE PLANNING). (B.C.L. & LL.B.) (2 credits). Provincial succession duties and gift tax as well as the income tax consequences of death. A critical view of current estate planning techniques such as estate freezes. Particular emphasis will be placed upon those aspects of personal and corporate income tax which are relevant in designing and implementing estate plans. *Prerequisites:* Taxation I and either Successions or Trusts and Gifts I.

491-415 TAXATION IV (TAX POLICY). (B.C.L. & LL.B.) (2 credits). Public aspects of tax legislation; federal-provincial agreements; tax sharing and equalization; municipal aspects; social problems in tax policy. Negative tax and re-distribution of resources.

491-417 TAXATION V (CORPORATE TAXATION). (B.C.L. & LL.B.) (2 credits). The course considers, in depth, problems unique to corporations and their shareholders including the small business deduction and refundable taxes; distributions to shareholders; corporate reorganizations and liquidations; and the capital gain and "rollover". *Prerequisites:* Taxation I and Business Associations I.

485-179 TORTS I. (LL.B.) (5 credits). Basic principles of intentional torts, negligence and liability without fault at common law.

483-449 TRUSTS AND GIFTS I. (LL.B.) (5 credits). An introduction to equity; selected equitable doctrines. The nature of the trust in theory and practice; creation of express trusts; trusts arising and imposed by operation of law; obligations and interests arising under trusts and related concepts; remedies. Modern uses of the trust. The trust in civil law. *Prerequisites:* Property IA & IIA and Contracts I.

476-187A TUTORIALS I (B.C.L. & LL.B.) (2 credits). This program involves the division of the first year class into small groups for carrying out written and oral assignments under the guidance of upper year students who are members of the Board of Student Advisers and under the supervision of members of the professorial staff.
N.B. Senate authorization pending at time of publication.

6.2 FACULTY SUPERVISED EQUIVALENCES

Credits are awarded as equivalences, upon the recommendation of the designated member of the professorial staff, for student participation in the following supervised activities.

476-188 ADVANCED MOOTING. (B.C.L. & LL.B.) (2 credits). Participation, under Faculty supervision, as a Faculty representative, in one of the following moot court competitions: Gale Cup Moot, Tribunal-Ecole Interfacultaire, Faculty Moot Court Competition. *Prerequisites:* Mooting I and Mooting II.

496-016 BOARD OF STUDENT ADVISERS (B.C.L. & LL.B.) (2 credits) Fifteen students who have completed four terms in the Faculty may elect once only, with the permission of the Dean or his delegate, to serve as members of the Board of Student Advisers in conjunction with the Faculty's Tutorial Program. Each Student Adviser works under the supervision of a member of the professorial staff assigned to the program. Credits are awarded upon the recommendation of the Faculty Adviser and the professor assigned to the Tutorial Group to which the Student Adviser is attached.
N.B. Senate authorization pending at the time of publication.

496-048 GROUP ASSISTANTS (B.C.L. & LL.B.) (2 credits) A limited number of candidates who have completed four terms in the Faculty may elect once only, with the permission of the Dean or his delegate, to work as Group Assistants in an approved course. Candidates must file an application prior to the end of the first week of term in which they propose to serve as Group Assistants and file a written report on their work by the last day of classes in that term.

496-046 LEGAL CLINIC (B.C.L. & LL.B.) (2 credits). A limited number of students who have completed four terms in the Faculty may elect once only, with the permission of the Dean or his delegate, to work for credit in an approved clinic. Candidates must file an application prior to the end of the first week of term in which they propose to work in the Clinic and must complete and file all required documentation by the last day of classes in that term.

McGILL LAW JOURNAL (B.C.L. & LL.B.)

496-001 Editor-in-Chief	6 credits
496-002 Executive Editor	4 credits
496-008 Associate Editor	4 credits
496-003 Managing Editor	4 credits

496-004 Eleven members of Senior Board	2 credits (each)

MOOT COURT BOARD (B.C.L. & LL.B.)

496-005 Chairman	4 credits
496-006 Vice-Chairman	3 credits
496-007 Six to eight members of Senior Board	2 credits (each)

476-189 PHILIP JESSUP INTERNATIONAL MOOT. (B.C.L. & LL.B.) (3 credits). Participation as a Faculty representative in the Philip Jessup International Moot Competition under Faculty supervision. *Prerequisites:* Mooting I and Mooting II.

6.3 CREDIT EQUIVALENCES GRANTED FOR ACTIVITY OUTSIDE THE FACULTY

A limited number of the credits required for either law degree or for the joint degrees under the National Program may be obtained in appropriate courses given by other faculties of McGill University or other universities, as arranged from time to time, provided the approval of the Dean or the Dean's delegate has been granted prior to registration. The total number of non-law credits that may be allowed under this Regulation shall not exceed six.

The grades obtained in a course taken outside the Faculty of Law are not computed in a candidate's average.

Where a course is taken at McGill University but outside the student's home faculty, it is university policy that the marking system be that of the student's home faculty.

7 GRADUATE PROGRAMS OF STUDY

7.1 REGULATIONS

Degrees

The higher degrees in Law are the M.C.L. (Master of Civil Law), the LL.M. (Master of Laws) and the D.C.L. (Doctor of Civil Law), as offered by the Institute of Air and Space Law and the Institute of Comparative Law and are granted by the Faculty of Graduate Studies and Research.

All graduate students in Law except those registered in the Institute of Air and Space Law, come under the administrative direction of the Institute of Comparative Law. For more information about admission and the program of studies, see Section "F" of the Graduate Faculty Announcement.

GENERAL REQUIREMENTS FOR THE M.C.L. or LL.M. DEGREE

Candidates for admission to M.C.L. or LL.M. programs must hold the degree of B.C.L., with at least second class honours, from McGill University, or its equivalent from another recognized university, and satisfy the linguistic and other requirements of the program. A candidate must complete the courses prescribed, including cognate courses in other departments of study, submit an acceptable thesis and, if required, undergo an oral examination designed to test the general knowledge of the field of the research studies.

The requirements for the degree may be completed, by well-qualified and capable students, within one calendar year, but if all the degree requirements have not been completed within this time an additional full academic session in residence is necessary.

In certain cases a transfer of candidacy from the M.C.L. or the LL.M. to candidacy for the D.C.L. may be permitted at the end of the year in residence. Such transfer is open only to a student who shows considerable promise and upon the recommendation of the Graduate Studies Committee. A student so transferred will not be required to prepare a Master's thesis but must spend at least one further year in residence at McGill.

See the general Regulations of the Faculty of Graduate Studies and Research on requirements for Master's degrees.

N.B.

In exceptional circumstances the Executive Committee of the Faculty of Graduate Studies and Research may grant an exemption from the requirement of a second residential year at McGill to a candidate who has failed to complete all the requirements for the Master's degree within one year.

GENERAL REQUIREMENTS FOR THE D.C.L. DEGREE

The program of each department of study consists of a minimum of three years' work from the first registration of the candidate of which at least two years must be spent in full-time resident study at McGill. Only an applicant with proven legal scholarship of high merit will be admitted to candidacy for this degree and normally a candidate should be the holder of both a general degree and a law degree. In suitable cases the holder of the M.C.L. or LL.M. degree of McGill (or its equivalent) may be considered as having satisfied the first year of the doctoral program. An applicant must satisfy the linguistic and other requirements of the program and, as a rule, a candidate who is not the holder of an appropriate Master's degree, or its equivalent, would not be permitted to register directly for the D.C.L. but would be required to register for the M.C.L. or LL.M. A candidate for the M.C.L. or LL.M. degree of McGill, who, upon the completion of the first year of resident study, shows considerable promise may

be permitted to proceed to the second year of the D.C.L. program without being required to submit a Master's thesis.

At a stage in the program of studies a candidate may be required to pass an oral examination, the purpose of which is to test the general knowledge of the field of research studies. Candidates will be required to defend their thesis before a jury appointed by the Faculty of Graduate Studies and Research and consisting of no fewer than five adjudicators, including at least two who are not members of the Faculty of Law. To qualify for the degree the thesis submitted must be in a form suitable for publication and constitute a significant contribution to legal knowledge, evidencing in concept and execution the original work of the candidate.

Insofar as not varied by the above, the rules and regulations of the Faculty of Graduate Studies and Research apply in all matters pertaining to candidature for a degree.

7.2 INSTITUTE OF AIR AND SPACE LAW

Director - Dr. Nicolas M. Matte, OC, Q.C.
Teaching Staff - See Section 2.6

PURPOSE OF THE INSTITUTE

The Institute of Air and Space Law operates within the Faculty of Law. It provides facilities for advanced study and research in Air and Space Law and related problems of international law for highly qualified law graduates and others with appropriate qualifications.

The Québec Ministry of Education has recognized the Institute as a research Centre in Air and Space Law (Centre de recherches en droit aérien et spatial). The financial assistance provided enables the Centre, within the context of inter-university research, to promote the study and publications relating to various aspects of this branch of international law.

DIPLOMAS AND DEGREES

The Institute of Air and Space Law offers a Diploma in Air and Space Law, and the degrees of Master of Laws (LL.M.) and Doctor of Civil Law (D.C.L.).

REQUIREMENTS FOR THE DIPLOMA IN AIR AND SPACE LAW

Applicants for admission must hold a law degree of high standing from an approved law school in any part of the world, or must have an equivalent professional standing. Working competence in the English language is required but examinations and other written work may be presented in English or French. All candidates must provide evidence of the subjects covered in their prior law studies and of their scholastic or professional standing, together with two references.

A candidate who satisfies the residence requirements of one academic session and who passes the prescribed examinations with an overall average grade of at least 65% will be awarded the Diploma in Air and Space Law.

The Director may require additional courses of particular candidates.

COURSES

387-610 INTRODUCTION TO AIR AND SPACE LAW (2 hours, first term). An historical survey of the law of aeronautics and the development of the safety of flight; commercial and economic aspects of air transport; carrier's liability. Past and existing air law conventions or agreements are considered as well as the application of the liability regime by civil and common law courts. Aspects of space activities and developing space law are reviewed.

387-611 PUBLIC INTERNATIONAL AIR LAW I (2 hours, first term). A study of the relevant principles and rules of international law; political, military and economic factors governing use of air space and aeronautics. Flight technology, its uses; aerospace resources and national policy; sources of international air law; the law-making process affecting air space and international air navigation; air sovereignty; air space over the high seas and polar areas; prohibited areas and aerial intrusions; nationality of aircraft; environmental law and air space activities.

387-612 PRIVATE INTERNATIONAL AIR LAW I (3 hours, first term). The law of international carriage by air of passengers and baggage with particular reference to the Warsaw Convention, the Guadalajara City Convention, the protocols amending the Warsaw Convention and other instruments relating thereto; law governing liability of air traffic controllers and legal principles respecting the effect of the operation of aircraft on persons and property on the ground.

387-615 ECONOMICS OF AIR TRANSPORT (3 hours, first term). This course is designed to introduce students to factors which determine the economic performance of air carriers. It deals specifically with route pattern and its effects, nature of air carrier markets, setting of fares and rates, and with the resources of aircraft capital funds and personnel. The course concludes with the use of a simple planning model.

387-616 COMPARATIVE METHODOLOGY (3 hours, first term). An introduction to Civil Law for Common Law trained students in air and space law, and to Common Law for Civil Law trained students. History of both legal systems, the law of property, obligations, contracts, torts, security instruments and conflicts (private international law). A comparative study of manufacturers' liability in air and space law.

387-621 PUBLIC INTERNATIONAL AIR LAW II (2 hours, first term). The law and practice of the International Civil Aviation Organization, its characteristics, structure, functions and powers. International Air Transport Association (IATA) and the legal and

commercial aspects of air carrier operations. IATA's role in the regulation of tariffs and standardization of air carrier practices.

387-613 GOVERNMENT REGULATION OF AIR TRANSPORT (3 hours, second term). Constraints, both national and international, on the regulator; the instrumentalities used by Governments as the means for regulating civil aviation; regulation of air navigation; the negotiation and implementation of bilateral air transport agreements; the interface between air transport agreements and national laws, and national economic regulation of air transport.

387-614 SPACE LAW I (3 hours, second term). The role of international law in the regulation of outer space activities. Current and potential future uses of outer space; the law-making process relating to space activities; legal regime of outer space and celestial bodies; legal status of spacecraft; liability for damage caused by space activities; assistance to astronauts and spacecraft in distress; remote sensing by satellites; international law and military uses of outer space.

387-615 AIRCRAFT FINANCE (2 hours, second term). A study of the development of aircraft financing and the various types of security, nationally (in civil and common law countries) and internationally (Geneva Convention). The legal implications of bilateral or public aircraft financing are also considered.

387-622 PRIVATE INTERNATIONAL AIR LAW II (2 hours, second term). Specific aspects of private international air law. An analysis of the contractual relationship between the consignor and the consignee, the preparation of the airway bill and the liability regime. Aviation insurance, the procedure followed by clients, brokers and underwriters, the settlement of claims.

387-624 SPACE LAW II (2 hours, second term). Telecommunications in today's world and the advantages of telecommunications satellites as opposed to conventional means of communications. Global, regional and national cooperation in telecommunications, in particular by satellites and with respect to their commercial utilization. Legal implications of direct broadcasting by satellite and international regulation of the radio spectrum, with emphasis on space telecommunications activities as an important element of emerging space law.

387-631 PUBLIC INTERNATIONAL AIR LAW III (3 hours, second term). A more detailed study of the problems raised in Public International Air Law I. Aircraft Accident Investigation (Annex 13 of the Chicago Convention); Armed Conflict, the principles governing use of military aircraft in time of war; the international legal status of the aircraft commander; regional organizations involved in the regulation of aviation activities at a regional level, e.g., ECAC (Europe); CACAS, ASECNA (Africa); CLAC, COCESNA (Latin America).

387-617 TERM PAPER. Substantial research paper to be written on a topic, selected by the student from a list of topics drawn up by the Director. Appointments of term paper supervisors are made by the Director.

REQUIREMENTS FOR THE DEGREE OF MASTER OF LAWS

A working competence in the English language is required but examinations and written work including theses may be presented in either French or English. All candidates must provide evidence of the subjects covered in their prior law studies and of their scholastic or professional standing, together with two references.

The prescribed courses are those set out as required for the Diploma, but in addition the candidate must present an acceptable thesis on a subject approved by the Director. In order to be allowed to submit a thesis, a candidate must have obtained a mark of least 65% in each of the courses or seminars taken. No candidate may receive the Diploma and the Master's degree for the same course of studies. A candidate who has already received the Diploma in Air and Space Law may be accepted as a candidate for the Master's degree, but will be required to register for one additional academic session, and may also be required to undertake additional course work beyond the course work already performed for the Diploma. For the General Requirements, see Section 6.1, third paragraph.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF CIVIL LAW

Candidates for the degree of Doctor of Civil Law must hold the degree of B.C.L. or LL.B. from McGill University or its equivalent from another recognized university. As a rule a candidate who does not already hold a Master's degree will be required to complete the Master's degree before being accepted for the doctoral program. A candidate who has obtained the Master"s degree or its equivalent from another university will, as a rule, be required to complete the courses prescribed for the first year of the Master's degree. If performance is not of sufficiently high standard to justify admission to the doctoral program, the candidate will not be permitted to proceed any further, but may be permitted to submit a Master's thesis to qualify for the Master's degree. If the performance is of sufficiently high standard, the candidate may be permitted to proceed to the second year of the doctoral program without being required to submit a Master's thesis.

The degree of Doctor of Civil Law is predominantly a research degree, and will be awarded on the basis of a thesis that represents an original contribution to the development of legal science. The thesis may be presented in English or French. All prospective candidates must provide evidence of the subjects covered in their prior law studies and of their scholastic and professional standing, together with two suitable references. The degree will be awarded, at the earliest, after the completion of

three years from the first postgraduate registration of the candidate at McGill University. In the case of a candidate who holds the M.C.L. or LL.M. degree of McGill or its equivalent from another university, two years of resident study beyond the Master's degree are required but may be reduced to one year with the approval of the Executive Committee of the Faculty of Graduate Studies and Research on the recommendation of the Graduate Studies Committee of the Faculty of Law. In general, this non-resident year should be spent at another university or similar institution.

7.3 INSTITUTE OF COMPARATIVE LAW

Director - Professor Paul-A. Crépeau, Q.C.
Teaching Staff - See Section 2.7

PURPOSES OF THE INSTITUTE

The Institute of Comparative Law operates within the Faculty of Law. As a centre of comparative legal studies, the Institute provides facilities for graduate work, advanced studies and research for highly qualified law graduates in certain areas of comparative Public and Private Law. It also serves as the administrative unit within the Faculty of Graduate Studies, for research and graduate work in other fields as well, such as Public Law and Criminal Law.

DEGREES

The Institute of Comparative Law offers the degrees of Master of Civil Law (M.C.L.), Master of Laws (LL.M.) and Doctor of Civil Law (D.C.L.).

There is no uniform program of studies. Candidates follow a program determined by the Director which, as far as possible, is fashioned to meet their particular needs as indicated by prior legal experience and aspirations.

As a rule, a candidate must take a minimum of five courses during the two terms of the academic year. Moreover, a candidate with a civil law background will normally be required to select at least one undergraduate course from the common law program and vice-versa. The remaining courses may be selected, subject to the Director's approval, from seminars provided by the Institute and from courses forming part of the curriculum for the B.C.L. or LL.B. programs in the Faculty of Law and in certain cases from courses offered in other faculties.

Upon request, a candidate may register as a half-time student and complete the prescribed course work in two academic years.

To complete the requirements for the Master's degree, a candidate will be required to submit a thesis on a subject approved by the Director. A candidate who has failed to complete the prescribed course work will not be permitted to proceed to the submission of a thesis.

Examinations, term papers and theses may be written in English or French.

NOTE: In accordance with the requirement of the Faculty of Graduate Studies a pass standard of 65% must be obtained in each course.

COURSES

I. GENERAL

389-520 INTRODUCTION TO COMPARATIVE LAW. (2 credits). Study of changing legal institutions in representative civil and common law jurisdictions (France, Germany, the U.K., the U.S.A., Quebec and Ontario). Subjects will include the judiciary, court structures and administration, role of appellate courts, administrative courts and tribunals, access to justice (costs, legal aid, standing, class actions), judicial and party control of litigation, legal education and the law-making process.

389-621 TUTORIAL. (2 hours, first term). Research on specific topics under the guidance of members of the teaching staff.

389-622 TUTORIAL. (2 hours, second term). Research on specific topics under the guidance of members of the teaching staff.

II. COMPARATIVE & INTERNATIONAL COMMERCIAL LAW

389-530 COMPARATIVE COMPANY LAW. (2 credits). A comparative survey of the principal corporate models and the different approaches to the problems of management supervision, fiduciary duties, non-capital participation, securities regulations, conflicts in cross-frontier mergers and the social responsibilities of corporate bodies, in the U.S.A., the United Kingdom, France, West Germany and Canada.

389-541 INTERNATIONAL BUSINESS ENTERPRISES. (2 credits). Introduction to the evolving legal and managerial structure of the multinational enterprise and its impact upon national economies and policies, and to the new strategies of concentration control, intra-enterprise practices and transnational labour relations. The Societas Europaea. *Prerequisite:* Comparative Company Law.

389-531 INTERNATIONAL BUSINESS TRANSACTIONS I. (2 credits). An introduction to International Business law and the laws, national and international, applicable to international business transactions. Private law applicable to international business transactions, international sales; federal regulation, export controls, anti-dumping, export insurance; International Law: bilateral trade agreements, GATT. The focus will be Canadian but comparative materials are included and research on problems arising in other legal systems will be encouraged.

389-532 INTERNATIONAL BUSINESS TRANSACTIONS II (LAW OF FOREIGN INVESTMENT). (2 credits). An advanced research seminar dealing

with Canadian direct investment abroad; foreign direct investment in Canada (Foreign Investment Review Act); the international settlement of investment disputes. Some knowledge of economics, commercial law and international law is expected. *Prerequisite:* International Business Transactions I.

389-539 INTERNATIONAL TAXATION. (2 credits). Canadian tax treatment of the export of goods and services, carrying on business in other countries, establishing foreign subsidiaries, international employee transfers and real estate investments, foreign currency fluctuations, international reorganizations, foreign holding companies, offshore shipping, captive insurance companies, international joint ventures and partnerships.

389-536 EUROPEAN COMMUNITY LAW I. (3 credits). The institutions of the European Economic Community (Council Commission, Court of Justice, European Parliament) within the Treaty of Rome. Particular emphasis on the role of the Court of Justice. Various aspects of the substantive law of the Community: free movement of goods, labour, services and capital, the harmonization of national legislation and the law concerning competition.

389-537B EUROPEAN COMMUNITY LAW II. (2 credits). Selected topics in the evolving law of the European Economic Community will be announced in advance.

389-533 RESOLUTION OF INTERNATIONAL DISPUTES. (3 credits). A seminar dealing, on a comparative basis, with conflict of jurisdictions and recognition of foreign judgments, as well as arbitration between parties to international contracts, with particular reference to international conventions.

389-534 COMPARATIVE PRIVATE INTERNATIONAL LAW I. (2 credits). The comparative study of basic rules of conflict of laws and enforcement of foreign judgments in the civil and common law systems, with particular reference to international and inter-regional unification efforts.

389-538B COMPARATIVE PRIVATE INTERNATIONAL LAW II. (2 credits). An advanced research seminar on contemporary problems relating to choice of law, conflicts of jurisdictions and recognition of foreign judgments.

389-553 MARITIME LAW II (INTERNATIONAL CONVENTIONS). (2 credits). An advanced seminar dealing with international maritime conventions in respect of collisions, jurisdiction, limitations of liability, maritime liens and mortgages, marine insurance, salvage and the interpretation of those treaties. Canadian, American, British and French judgments and legislation in respect to those conventions will be compared.

III. COMPARATIVE PRIVATE LAW

389-534 COMPARATIVE PRIVATE INTERNATIONAL LAW I. (2 credits). For details, see above.

389-538 COMPARATIVE PRIVATE INTERNATIONAL LAW II. (2 credits). For details, see above.

389-552 CONTEMPORARY CIVIL LAW PROBLEMS. (2 credits). A graduate research seminar dealing with selected contemporary problems in the main private law institutions, particularly in the light of the Quebec Civil Code Revision Report and recent legislative enactments. Comparative studies will be encouraged.

389-550 COMPARATIVE CIVIL LIABILITY (2 credits). A comparative and critical analysis of contemporary problems in the general theory of civil responsibility.

389-551 COMPARATIVE MEDICAL LAW. (2 credits). A comparative study of selected contemporary medico-legal problems including civil and criminal liability of doctors and hospitals, consent, medical and hospital contracts, emergency services, organ transplants, death, euthanasia, abortion, sex reassignment, experimentation and medical ethics.

389-553 MARITIME LAW II (INTERNATIONAL CONVENTIONS). (2 credits). An advanced seminar dealing with international maritime conventions in respect of collisions, jurisdiction, limitations of liability, maritime liens and mortgages, marine insurance, salvage. Canadian, American, British and French materials will be compared.

IV. HUMAN RIGHTS

389-570 COMPARATIVE AND INTERNATIONAL PROTECTION OF MINORITIES' RIGHTS. (2 credits). A seminar adopting an international and comparative law approach to the study of the protection of racial, religions and linguistic minorities, with particular reference to the United Nations Sub-Commission on the Prevention of Discrimination and the Protection of Minorities.

REQUIREMENTS FOR THE DEGREES OF MASTER OF CIVIL LAW AND MASTER OF LAWS

An adequate working knowledge of the English and French languages is required from all applicants. Applicants who wish to pursue studies which in the opinion of the Director require knowledge of a language other than English or French must possess adequate working knowledge of that language.

All applicants must provide evidence of the subjects covered in their prior law studies, of their scholastic or professional standing, and of their linguistic proficiency in English and French, together with no less than two references. For the General Requirements, see Section 8.1.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF CIVIL LAW

Candidates for the degree of Doctor of Civil Law must hold the deg of B.C.L. or LL.B. from McGill University or its equivalent from anothe university. As a rule, a candidate who does not already hold a Master' degree will be required to complete the

Master's degree before being accepted for the doctoral program. A candidate who has obtained the Master's degree from another university will, as a rule, be required to complete the courses prescribed for the first year of the Master's degr If performance is not of sufficiently high standard to justify admissio the doctoral program, the candidate will not be permitted to proceed an further, but may be permitted to submit a Master's thesis to qualify fo Master's degree. If the performance is of sufficiently high standard, candidate may be permitted to proceed to the second year of the doctora program without being required to submit a Master's thesis.

The degree of Doctor of Civil Law is predominantly a research degr and will be awarded on the basis of a thesis that represents an origina contribution to the development of legal science. The thesis may be presented in English or French. All prospective candidates must provid evidence of the subjects covered in their prior law studies and of thei scholastic and professional standing, together with two references. Th degree will be awarded, at the earliest, after the completion of three from the first postgraduate registration of the candidate at McGill University. In the case of a candidate who holds the M.C.L. or LL.M. d of McGill or its equivalent from another university, two years of resid study beyond the Master's degree are required but may be reduced to one with the approval of the Executive Committee of the Faculty of Graduate Studies and Research on the recommendation of the Graduate Studies Comm of the Faculty of Law. In general, this non-resident year should be sp under appropriate supervision, at another university or similar institution.

8 ADMISSION TO THE LEGAL PROFESSIONS

8.1 QUEBEC

The attention of candidates for the Bar of Québec and for the Québec Notarial Profession is drawn to the special legislation and regulations governing those professional bodies.

Information regarding admission to the Bar may be obtained by applying to the Bar of Québec, 1 Notre-Dame Street East, Room 9.80, Montreal H2Y 1B6. Telephone: 866-3901. Information regarding admission to the Notarial Profession may be obtained by applying to the Chamber of Notaries, 630 Dorchester Boulevard West, Montreal H3B 1S6. Telephone: 866-1793.

8.1.2 CURRICULAR REQUIREMENTS (RECOMMENDED COURSES FOR CANDIDATES PROCEEDING TO THE LEGAL PROFESSIONS)

PART I. BAR OF QUEBEC

In addition to those courses indicated as degree requirements by the Faculty, students intending to seek admission to the Bar of Quebec are advised that the Bar admission examinations may bear upon subjects falling within the following Faculty courses:

1. Quebec Law
   472-425 Judicial Law & Evidence
2. National Law
   494-365 Business Associations I
   491-313 Taxation I
   494-465 Banking & Negotiable Instruments
   493-435 Bankruptcy & Insolvency
   495-369 Labour Law I
   491-422 Criminal Law II
   491-401 Administrative Law OR
   491-403 Municipal Law OR
   483-145 Land Use Planning OR
   491-409 Civil Liberties

PART II. BOARD OF NOTARIES

The Regulations of the Board of Notaries, while not requiring students to take a pre-determined obligatory profile of courses, state that students seeking admission to the Notarial Profession will be examined on the following matters:

> 3.01.05...the drawing up of deeds, other documents relating to the practice of the notarial profession, opinions and consultation; questions on civil and commercial law, including insurance law, public or private corporation law, the Bills of Exchange Act and the Bankruptcy Act, the Loi du notariat (Notarial Act) and the by-laws and regulations of the Chambre des notaires; the keeping of offices, notarial accounting, financial law, financial administration, fiscal law and practical business procedure. (Order in Council 3531-78, November 15, 1978)

It is suggested therefore that students intending to proceed to that profession, while pursuing the B.C.L. degree, take one or more courses in the following subjects:

Administrative Law	Insurance
Accounting	Land Use Planning
Banking and Negotiable Inst.	Municipal Law
	Obligations

- Bankruptcy
- Civil Procedure
- Consumer and Commercial Law
- Company Law
- Constitutional Law
- Evidence
- Family Law & Matrimonial Property
- Private International Law
- Property and Prescription
- Security in Property
- Special Contracts
- Successions
- Taxation

8.1.3 LANGUAGE REQUIREMENTS

Quebec Law requires that candidates seeking admission to provincially-recognized Quebec professional corporations possess a working knowledge of the French language, i.e. an ability to communicate verbally and in writing in that language.

To demonstrate this capability, a candidate is required to pass an examination set by the Office de la langue française, unless it can be shown that three years of instruction in a French post-primary school have been completed.

The examination may be attempted by students registered in the University during the two years prior to the date they can seek admission to the professional corporation. Students wishing to sit such an examination should make arrangements with the Student Affairs Office.

More information may be obtained from the Office de la langue française, Tour de la Bourse (Place Victoria), 15e étage, Montréal, Québec H4Z 1G8. Telephone: 873-6361.

Students who need to acquire a functional level of proficiency in French may register in courses at either the French Language Centre, 3438 McTavish Street, telephone: 392-5757, for courses during the day, or at the Centre for Continuing Education, 772 Sherbrooke Street West, Montreal, Quebec, telephone: 392-4901, for courses in the evening.

Students already proficient in French but who wish to keep up practice may register in courses at the Department of French Language and Literature, 3460 McTavish Street, telephone: 392-4577, or at the Centre d'études canadiennes-françaises, 3475 Peel Street, telephone: 392-5200.

8.2 ONTARIO

Admission to the Bar of Ontario is under the control of the Law Society of Upper Canada. That Society requires that the applicant for admission be a graduate from an approved law school. The Law Faculty of McGill has been approved by the Society. Graduates with the degree of Bachelor of Laws (LL.B.) are eligible to enter the Bar Admission Course conducted by the Law Society of Upper Canada and to become student members of the Society. The Society further requires that, in order to become eligible, a student holding a CEGEP diploma take an additional university year before entering law.

8.2.1 CURRICULAR REQUIREMENTS

The Regulations of the Law Society of Upper Canada stipulate that an approved law school shall offer instruction regularly in the following areas:

- Agency
- Banking & Bills of Exchange
- Civil Procedure
- Company Law
- Conflict of Laws
- Contracts
- Criminal Law and Procedure
- Equity
- Evidence
- Family Law
- Jurisprudence or one subject of a jurisprudential nature
- Labour Law
- Legal History
- Legislation & Administrative Law
- Municipal Law
- Partnership
- Personal Property
- Real Estate Transactions
- Real Property
- Sale of Goods
- Taxation
- Torts
- Trusts
- Wills & Administration of Estates

However, this list should be regarded as indicating areas of the law in which instruction will be regularly offered and should not be regarded as necessarily establishing courses that must be taught separately or in combination under these specific labels. The different subject areas may be variously combined or sub-divided at the different law schools.

The Regulations also require every student to take the major basic course offered in each of the following subject areas:

- Civil Procedure
- Constitutional Law of Canada
- Contracts
- Criminal Law and Procedure
- Personal Property
- Torts

8.2.2 BAR ADMISSION COURSE

The Bar Admissions Course consists of a period of twelve months service under Articles of Clerkship with a member of the practising profession in Ontario followed by a further period of six months of full-time attendance at lectures organized by the Law Society of Upper Canada at three centres (Osgoode Hall, Toronto; London; Ottawa). Upon successful completion of these courses the candidate may be called to the Bar provided he meets the other requirements of the Ontario Bar.

Candidates intending to seek admission to the Faculty should first seek detailed information on the above from the Secretary, Law Society of Upper Canada, Osgoode Hall, Toronto, Ontario M5H 2N6.

8.3 OTHER PROVINCES

In general the governing bodies of legal professions in the other Canadian common law provinces treat the LL.B. degree of McGill University in the same way as they treat an LL.B. degree from any Canadian common law school. Students who have

specific inquiries about any particular province should address them to the governing body of the profession in the province concerned.

Candidates for the Bachelor of Laws degree (LL.B.) seeking entrance to the Bar Admission program of any of the common law provinces must satisfy the regulations of the particular common law province, to the Bar Admission Course or program to which entrance is sought. The attention of candidates is drawn to the pre-law requirements of the Bars of the various provinces. All such regulations are subject to amendment by those bodies.

8.3.1. CURRICULAR REQUIREMENTS - OTHER PROVINCES

In addition to the basic mandatory subject areas of Civil Procedure, Constitutional Law, Contracts, Criminal Law and Procedure, Personal Property, Real Property and Torts, the Bars of the other provinces strongly advise the taking of courses in Family Law, Evidence, Wills and Trusts, and Commercial and Corporate Law. The Bar of Newfoundland also includes Shipping in this list. As well, the Bar of Alberta recommends a course in Accounting.

9 SCHOLARSHIPS, PRIZES AND LOAN FUNDS

9.1 SCHOLARSHIPS AND BURSARIES

EDWIN BOTSFORD BUSTEED SCHOLARSHIP. - Founded by the will of the late Mrs. Busteed in memory of her husband, Edwin Botsford Busteed, K.C., B.A., B.C.L. (1879), this scholarship will be awarded to an applicant, chosen by the Faculty, who desires to carry out graduate research on some subject connected with the law of Quebec and approved by the Faculty. The value of the scholarship is approximately $3,000 and can be used to supplement funds for graduate studies already received from other sources. Candidates shall make application for this scholarship to the Dean.

CARON MEMORIAL AWARD. - Value approximately $500. Established in 1978 by the family, friends, former students and colleagues in both the university and the legal professions of the late Yves-Armand Caron, B.A., LL.L. (Montr.), LL.M.(Col.), D.Phil.(Oxon.) (1939-1977), who was a distinguished member of the teaching staff from 1967 to 1977 and a prominent member of the Order of Notaries for fifteen years. The scholarship is intended to encourage excellence in his fields of special interest and to commemorate his attachment to his chosen profession as notary.

Awarded, at the discretion of the Faculty Scholarship Committee, either to an entering student (preference being given to a student intending to proceed to the notarial profession) or to a student who has demonstrated superior ability in either fiscal, civil or commercial law.

DUFF-RINFRET SCHOLARSHIPS. - Value $9,800. To commemorate the 100th anniversary of the founding of the Supreme Court of Canada, celebrated in 1975, the Federal Department of Justice offers seven Master's program scholarships to qualified students in Canadian law schools. These scholarships are designated as the Duff-Rinfret Scholarships in honour of two former Chief Justices of the Supreme Court of Canada who were distinguished representatives of this country's two legal systems. The goal of this program is to promote legal research in Canadian law schools in areas within the jurisdiction of the federal government. Application forms are available within the Faculty.

HAROLD G. FOX EDUCATION FUND BURSARIES. - Established by donations from the Harold G. Fox Education Fund. To be awarded to needy law students in good standing. Application should be made to the Student Aid Office.

MAURICE GOLDENBERG MEMORIAL SCHOLARSHIP. - Value $550. For studies in Government, Constitutional Law, or Public Administration, established by Senator H. Carl Goldenberg, Q.C., B.A. (1928), M.A. (1929), B.C.L. (1932), in memory of his father, the late Maurice Goldenberg. Awarded by the University Scholarships Committee to the best candidate amongst those nominated by the Faculties of Arts and Law.

CHIEF JUSTICE R.A.E. GREENSHIELDS MEMORIAL SCHOLARSHIPS. - Three scholarships covering tuition fees bequeathed by the late Mrs. R.A.E. Greenshields in memory of her husband, the late Chief Justice Greenshields, B.A. (1883), B.C.L. (1885), D.C.L., LL.D., for many years professor of Criminal Law and Dean of the Faculty of Law. Awarded to students entering the Faculty of Law and renewable in each of the two upper years leading to the Bachelor of Civil Law degree, if satisfactory conduct, and at least a high Second Class standing, are maintained, or for other reasons at the discretion of the Faculty. Candidates must satisfy the regular requirements for admission to the Faculty, must have a standing of at least high Second Class, and preferably First Class at the university or institution which they previously attended, and must furnish evidence of the need for financial assistance to enable them to study law. Fluency in both English and French is not essential, but preference is normally given to applicants with a good working knowledge of both languages. Apply to the Faculty Admissions Office.

GREVILLE SMITH SCHOLARSHIPS. - These prestigious scholarships were established in 1977 with a generous bequest to the Martlet Foundation from H. Greville Smith, a former member of the Board of Governors and a distinguished industrialist and philanthropist, who was prominent in educational and scientific pursuits. They are awarded to outstanding students entering an undergraduate course of study at McGill University who have shown promise of future success and responsible citizenship. While academic standing is of primary importance, account will also be taken of qualities of leadership and participation in community affairs, student government or athletics. They are not related to financial need, and are open to Canadian citizens or landed immigrants with one year's residence in Canada at the time of registration.

Valued at $5,000 per annum, these scholarships are renewable annually to a maximum of 4 years in any full-time undergraduate degree program and, in addition, Dentistry, Law and Medicine. For renewal of the scholarship, the holder must continue to meet the criteria to the satisfaction of the Greville Smith Scholarships Committee.

SAUL HAYES GRADUATE FELLOWSHIP. - Value ranging from $7,500 to $8,500. Endowed by Edgar and Charles Bronfman in memory of Saul Hayes, for graduate studies in areas of Civil Liberties and Human Rights, and tenable for up to four years. Application should be made to the Faculty of Graduate Studies and Research.

H.E. HERSCHORN FUND. - The Student Aid Office may award a bursary from the interest of this fund to deserving students in the third or any subsequent year of their program leading to the B.Sc., B.A., M.D., C.M., B.C.L., or LL.B. degree.

E. LEO KOLBER SCHOLARSHIP.- Founded in 1979 by the friends and colleagues of E. Leo Kolber, B.A. (1949), B.C.L. (1952) to mark his 50th birthday. Awarded at the discretion of the Faculty of Law to a meritorious student entering first year who is in financial need. To be awarded by the Admissions Committee of the Faculty of Law. Value: tuition.

EUGENE LAFLEUR SCHOLARSHIP. - This scholarship in the amount of $1,500 presented by the law firm of Messrs. Clarkson, Tétrault in memory of its founder, Eugene Lafleur, B.C.L. (1880), LL.D. (1921), will be awarded annually to a student entering the year in which it is expected the B.C.L. degree will be obtained (whether the student is pursuing a purely B.C.L. program or is taking the National Program). Selection will be made by the Faculty on the principal ground of academic excellence.

LEON LEVINSON AWARD. - Value approximately $1,800. Established in 1977 by the associates and friends of Leon Levinson Esq. to mark his 75th birthday and his place as the dean of Canadian court reporters. Awarded annually at the discretion of the Faculty to a deserving member of the communications media (whether journalist or broadcaster) preferably from the Province of Quebec in order to assist in the study of law whether as a partial student or degree candidate.

MACDONALD TRAVELLING SCHOLARSHIP. - Founded by the will of the late Sir William Macdonald "for the purpose of enabling English-speaking Law students to take a course of studies in France", the testator "deeming it of great importance that the English-speaking members of the legal profession should be proficient in the French language." The value of the scholarship is approximately $10,000. The scholar selected is required to pursue a year's study in the Law Faculty of a French university approved, in each case, by the Faculty. The award is made at the discretion of the Faculty to a student of the graduating class proceeding to the Bar, who has obtained First or high Second Class honours in the final examination, and who would be unable without such financial help to spend a year in France. The Faculty interprets the will of the late Sir William Macdonald as intending that the scholarship be awarded only to students preparing for the legal professions in the Province of Quebec. Under the present regulations the scholarship must be used in the year in which it is awarded. Candidates should make application for this scholarship to the Dean.

JAMES McGILL AWARDS. - Value $500. Awarded to students with outstanding merit from anywhere in Canada proceeding to degrees in any faculty. Renewable each year provided academic standing satisfactory to the University Scholarships Committee is maintained. Candidates must be Canadian citizens or landed immigrants with one year's residence in Canada at the time of registration. Candidates with financial need may receive up to a total of full tuition fees plus the cost of board, residence and books. Students in need should complete an Application for Financial Aid which can be obtained from the Student Aid Office.

JAMES McGILL SCHOLARSHIPS. - Value $2,500. Awarded to students with outstanding merit from anywhere in Canada proceeding to degrees in any faculty. Renewable up to a maximum of four years provided the holder maintains a standard satisfactory to the University Scholarships Committee and maintains a minimum academic load of 30 sessional credits (excluding summer courses). Candidates must be Canadian citizens or landed immigrants with one year's residence in Canada at the time of registration. Candidates with financial need may receive up to a total of full tuition fees plus the cost of board, residence and books. Students in need should complete an Application for Financial Aid which can be obtained from the Student Aid Office.

NATIONAL PROGRAM SCHOLARSHIPS. - A number of entrance scholarships of $2,500 each, awarded to candidates with distinguished records in pre-law studies, registering for either the B.C.L. or LL.B. degree and with the intention of proceeding to the second degree in the National Program at McGill. Tenable for four years of the National Program if the candidate maintains distinguished academic standing.

OGILVY, RENAULT SCHOLARSHIP. - Value: tuition fees and book allowance. Established in 1980 by the generous gifts of members of the firm of Ogilvy, Renault to mark the occasion of the firm's centenary in 1979. Awarded by the Faculty of Law Scholarships Committee to a student with a distinguished academic record.

THE 125TH ANNIVERSARY ENTRANCE SCHOLARSHIP. - Established by the generous gifts of graduates of the Faculty of Law to mark the occasion of the Faculty's l25th Anniversary. The scholarship pays tuition fees for the first year of studies in the Faculty. To be awarded to a student with a distinguished record in pre-law studies registering for the LL.B. degree with the intention of entering the National Program.

THE 125TH ANNIVERSARY NATIONAL PROGRAM SCHOLARSHIPS AND BURSARIES. - Established by the generous gifts of graduates of the Faculty of Law to mark the occasion of the Faculty's l25th Anniversary. Two scholarships of up to $l,250 each. To be awarded to undergraduates showing promise and having distinguished scholastic records registering for the B.C.L. or LL.B. degree with the intention of entering the National Program. Tenable for the four years of the National Program provided the holder maintains distinguished academic standing. l25th Anniversary National Program scholars who show no financial need will be awarded a nominal emolument of $l00, and the Faculty may, in its discretion, award the balance of the Scholarship monies as l25th Anniversary Bursaries to any meritorious and needy students.

CHARLES ALBERT NUTTING BURSARY. - Established in 1930 by Miss Adelaide Nutting, M.A., R.N., in memory of her brother, Charles Albert Nutting, K.C., B.C.L. (1872). Awarded by the Student Aid Office to needy law students in good standing.

THOMAS SHEARER STEWART TRAVELLING FELLOWSHIP. - Established in 1967 by the family of the late Thomas Shearer Stewart, Q.C., a graduate of the Faculty of Law class of 1908. The fellowship, valued at not less than $7,000*, is to be awarded annually or as often as the Faculty considers advisable, to a recent graduate of the Faculty of Law designated by the Dean of the Faculty, preference being given to a graduate who is a Canadian citizen intending to reside in Canada upon completion of his studies. The fellowship is to be used for a graduate to follow a program of studies in Law at a university approved by the Dean of the Faculty, other than at a university in Québec. Candidates shall make application for this fellowship to the Dean.

*** It is the policy of the Trustees of the Wainwright Fund to entertain applications for supplements to the Thomas Shearer Stewart Travelling Fellowship from candidates showing an interest in the possibility of a career in law teaching.**

WAINWRIGHT SCHOLARSHIPS. - Established under a bequest from the estate of the late Arnold Wainwright, Q.C. (1879-1967), B.A. (1899), B.C.L. (1902), D.C.L. (1963), for many years a lecturer in the Faculty of Law and a distinguished lawyer of the Montreal Bar. Two entrance scholarships of $1,500 each for 3 years and $2,000 each for the fourth year. Awarded to undergraduates of promise having distinguished scholastic records registered for the B.C.L. or LL.B. degree and proceeding to the National Program. Tenable for four years if candidates maintain distinguished academic standing. In addition, two scholarships of $2,000 each are available for students who have obtained their first law degree and are entering the last year of the National Program. Wainwright scholars who show no financial need will be awarded the nominal sum of $100, the balance of monies to be allocated as Wainwright bursaries to meritorious students with need. Apply to the Faculty Admissions Office.

9.2 PRIZES

JOHN G. AHERN, Q.C., MEMORIAL AWARD. - This award of $150 was established in 1979 by the Montreal law firm of Ahern, Nuss & Drymer in memory of its distinguished founder, John Gerard Ahern, Q.C., 1894-1978, B.C.L. 1918, who achieved during his long career at the Bar the reputation of being an outstanding advocate and who served as Bâtonnier of the Bar of Montreal and Quebec in 1955-56. Awarded to the most meritorious student on the McGill Moot Court Board for his contribution to the Faculty's Mooting Program.

MAURICE ALEXANDER SCHOLARSHIP. - A scholarship valued at $175, bequeathed in 1950 by the late Maurice Alexander, C.M.G., K.C., of London, England, as a token of esteem for the late Sir Charles Peers Davidson, B.A. (1863), B.C.L. (1863), former Professor of Criminal Law at McGill (1898-1919). Awarded by the Faculty.

I. BALLON MEMORIAL MEDAL. - Established in 1955 by Mrs. I. Ballon in memory of her husband, the late Isidore Ballon, B.A. (1907), B.C.L. (1908), and awarded to the most outstanding student on the Board of Editors of the McGill Law Journal/ Revue de droit de McGill.

CASIMIR M.B. BIELSKI, Q.C. PRIZE IN PUBLIC INTERNATIONAL LAW. - $100, awarded for the best written contribution by an undergraduate law student in the field of International Law. Awarded by the Faculty of Law Scholarships Committee.

CANADA PERMANENT PRIZE. - An annual prize valued at $100, established in 1966 by Canada Permanent, awarded to the student who receives the highest standing in the group of courses comprising Wills, Successions, Marriage Covenants and Gifts.

CARON MEMORIAL PRIZE. - Founded in 1978 by the Law Undergraduate Society, on behalf of the Student Body, to commemorate the late Professor Yves-Armand Caron who taught in the Faculty of Law from 1967 to 1977. It is awarded, at the discretion of the Faculty, to the student who attains the highest academic achievement in the Civil Law course Property II related to the law of security. Silver trophy donated by the Law Undergraduate Society.

CARSWELL PRIZES.- A book prize of $200 established in 1948 by Carswell Company Limited awarded to a student in the graduating class. There are two further book prizes of $100 each, established in 1973 by the Company and awarded to a lower year student. These prizes are awarded at the discretion of the Faculty.

PRIX SOUVENIR GEORGE S. CHALLIES - GEORGE S. CHALLIES MEMORIAL AWARD.- Extract from address given by the Hon. Chief Justice Jules Deschênes of the Superior Court to the McGill Law Graduates Association on December 13th, 1973:

Mr. Justice Challies, B.A. (193l), M.A. (1933), B.C.L. (1935), M.C.L. (1947), left us prematurely earlier this year and the judges of the Superior Court of the Province of Quebec have thought that they should erect a monument, however small, to his memory. Where then better than at his Alma Mater?

We have, therefore, raised among ourselves the sum of $1,900 which it is our pleasure to donate to McGill University, for the money to be held in trust and the return to be given yearly to a deserving student in the judgment of the Faculty of Law, under the name of "Prix Souvenir George S. Challies - George S. Challies Memorial Award".

JOSEPH COHEN, Q.C. AWARD.- This award of $550 is made to a deserving student selected by the Faculty.

JOHN W. COOK, K.C. PRIZE.- A prize valued at $1,000 awarded annually to an outstanding member of the graduating class in law in memory of the late John W. Cook, K.C., B.C.L. (1897), as determined by the Dean and Faculty on the basis of high academic standing throughout the course, participation in Faculty activities and possible postgraduate intentions.

JOHN E. CRANKSHAW PRIZE.- Established by friends of the late John E. Crankshaw, Q.C., B.C.L. (1920), formerly lecturer in Criminal Law at McGill, the prize consists of $750 to be applied to Bar fees, advocate's gown and any other needs. Awarded to the student who has the highest standing in Criminal Law subjects at McGill and who has passed his final examination for admission to the Bar of the Province of Quebec.

MAX CRESTOHL PRIZE.- A prize valued at $l50, established in 1959 under the Will of the late Max Nathan Zion Crestohl, Q.C., B.A. (1923). Awarded to the student who, in the opinion of the Faculty, has submitted the best written contribution to the McGill Law Journal/Revue de droit de McGill.

RICHARD DE BOO PRIZE IN TAXATION.- A one-year subscription to the Canada Tax Service, awarded, through the courtesy of Richard de Boo Limited, on conditions set from time to time by the Faculty, to a student with distinguished standing in the law of Taxation.

FACULTY PRIZE IN TAXATION I.- This prize, in the amount of $250, is donated by the Montreal law firm of Verchère, Noël & Eddy. It is awarded annually to the student who receives the highest standing in the Faculty's basic course in Taxation.

H. ERIC FEIGELSON OBLIGATIONS PRIZE.- A prize valued at $100, awarded annually to the student who in his first year achieves the highest standing in the law of Obligations.

AIME GEOFFRION NATIONAL PROGRAM GOLD MEDAL.- Founded in 1977 by Mrs. H.E. Vautelet, O.B.E. in memory of her late father Aimé Geoffrion, K.C., B.C.L. (1893), D.C.L., of the Bar of the Province of Quebec.

Aimé Geoffrion (1874-1946), the grandson of Sir Antoine Aimé Dorion who was Chief Justice of the Province, was awarded the Torrance Gold Medal upon his graduation from McGill with the B.C.L. degree in 1893; he served in the Faculty as a Lecturer in Obligations from 1898 to 1906 and as Professor from 1906 to 1919, at which time he was appointed Emeritus Professor. He was acknowledged early in his career at the Bar to be among the leading legal counsel in this Province and in Canada. He appeared before the Privy Council in some hundred cases involving constitutional issues, in which he was a recognized expert, and won renown as an advocate in numerous celebrated civil and criminal cases. Infinite as his cases were in variety, his reputation was that of an advocate who referred to legal principles of general application - those transcending the particular characteristics of either Canadian legal tradition.

The medal is awarded to the student who completes the National Program with the highest standing throughout the Program and obtains, at a spring convocation, both the B.C.L. and LL.B. degrees simultaneously, or one of these degrees, having previously obtained the other.

CHIEF JUSTICE GREENSHIELDS PRIZE IN CRIMINAL LAW.- A prize valued at $200, endowed by the late Mrs. Greenshields in 1943 in memory of her husband, the late Chief Justice Robert Alfred Ernest Greenshields, B.A. (1883), B.C.L. (1885), D.C.L., LL.D., for many years professor of Criminal Law and Dean of the Faculty of Law, and awarded to the member of the graduating class in Law having the highest standing in Criminal Law throughout the law program.

ROSA B. GUALTIERI AWARD.- This award of $175 was founded in 1978 by Rosa B. Gualtieri, B.A. (1948), B.C.L. (1951). To be awarded to a graduating student deemed by the Dean and the Faculty of Law to be deserving because of high academic standing and exceptional personal qualities as demonstrated in the graduating year or throughout the course regardless of which undergraduate degree program the student has followed.

H.E. HERSCHORN PRIZE.- A prize valued at $400, established by the late Mr. H.E. Herschorn, N.P., B.A. (1911), B.C.L. (1914), to the highest ranking graduating student who intends to enter the Notarial Profession.

"I.M.E." PRIZE IN COMMERCIAL LAW.- A prize valued at $400, to enable a student to purchase law books, established by Mr. George S. McFaden, Q.C., awarded to the member of the graduating class having the highest standing in Commercial Law throughout the program.

INSTITUTE OF AIR AND SPACE LAW ESSAY PRIZE.- Founded in 1978 by Dr. Nicolas M. Matte, OC, Q.C. An annual prize of $300 awarded on the recommendation of the Institute of Air and Space Law to the student submitting the best term paper in the Institute of Air and Space Law during the student's first year of residence.

LYON WILLIAM JACOBS, Q.C., AWARD.- An award valued at $200. Originally established in 1957 by donations totalling $500, and increased in 1962 to $2,000 by Mr. and Mrs. Alvin B. Jacobs, Mrs. Sybil Jacobs Phillips, Dr. and Mrs. Morris Lieff, and Mr. and Mrs. Newman Biller, in honour of the late Mr. Lyon W. Jacobs, Q.C., B.C.L. (1911). Awarded to a second or third year law student who, in the opinion of the Faculty, shows the most progress in his studies and is also in financial need.

JUNIOR BAR ASSOCIATION PRIZE.- A prize of $75 for the student who obtains the highest standing in Civil Procedure in the first year.

FERN GERTRUDE KENNEDY PRIZE IN JURISPRUDENCE.- $125, established in 1981 by an anonymous donor in memory of the late Fern G. Kennedy. Awarded by the Faculty of Law Scholarships Committee to a student who achieves high academic standing in the study of Jurisprudence.

DEAN IRA A. MacKAY PRIZE.- A prize valued at $250, established by Mr. R. deWolfe MacKay, Q.C., B.C.L. (1932), in memory of his father, formerly Dean of the Faculty of Arts and Science of McGill University, and awarded at the discretion of the Faculty to the student obtaining the highest standing in the field of Torts throughout the program.

CHESTER MACNAGHTEN PRIZES.- See Undergraduate Scholarships and Awards Announcement.

ADOLPHE MAILHIOT MEMORIAL PRIZE.- A prize of $50, established by Mr. and Mrs. J.N. Mailhiot, of Victoriaville, P.Q., in 1927, to be used for the purchase of law books.

THE PHILIP MEYEROVITCH, Q.C. PRIZE.- A prize valued at $100, established in 1972 by the wife and children of Philip Meyerovitch, Q.C., B.C.L. (1921), to commemorate his fifty years of practice before the Bar of the Province of Quebec. Awarded to the graduating student obtaining the highest standing in Evidence.

THE ELIZABETH CARMICHAEL MONK, Q.C. PROPERTY LAW PRIZE.- An annual prize valued at $300, established in 1979 by associates and friends of Elizabeth Carmichael Monk, Q.C., B.A. (1919), B.C.L. (1923), LL.D. (1975), a distinguished lawyer involved in the practice of law for more than fifty-five years. Awarded to a graduating student who achieves high standing in the law of Property throughout the program.

THE ELIZABETH CARMICHAEL MONK, Q.C. FAMILY LAW PRIZE.- An annual prize valued at $500 established in 1981-82 by the University Women's Club of Montreal, Inc., in memory of Elizabeth C. Monk, Q.C. B.A. (1919), B.C.L. (1923), LL.D. (1975). Awarded to a graduating student who achieves high standing in Family Law throughout the programme.

MONTREAL BAR ASSOCIATION PRIZES.- A prize of $200 for the student who obtains the highest standing in Civil Law throughout the law program and $200 for the student who obtains the highest standing in Civil Procedure throughout the law program.

MONTREAL BAR MOOTING PRIZES.- A prize valued at $100 and two prizes valued at $50 each for participants in the Faculty's annual Moot Court Competition, presented by the Montreal Bar Association.

ALEXANDER MORRIS EXHIBITION PRIZE.- A prize valued at $250, founded in memory of the late Hon. Alexander Morris, B.A. (1849), B.C.L. (l850), M.A., D.C.L., and awarded to the student who obtains the highest standing in the second year.

QUEBEC BAR PRIZE.- A prize valued at $200, awarded to the winning team in the Faculty's annual Moot Court Competition. Presented by the Quebec Bar Association.

THE LORD READING LAW SOCIETY PRIZE.- A prize valued at $150, established in 1952, awarded to the student who obtains the highest standing in the first year.

LOUIS H. ROHRLICK MEMORIAL PRIZE.- A prize valued at $175, established by associates of the late Louis H. Rohrlick, Q.C., B.A. (1922), B.C.L. (1925) in his memory, to be awarded to the member of the graduating class having the highest standing in Public International Law throughout the program.

THOMAS ALEXANDER ROWAT PRIZE. - Value $700, founded by Mr. Donald McKenzie Rowat, N.P., in memory of his brother, Lieutenant Thomas Alexander Rowat, B.C.L., who was killed in action at Lens, France, on June 28, 1917. To be awarded for proficiency in French and in the Civil Law on conditions set from time to time by the Faculty. It is at present awarded to the first year student other than one whose mother tongue is French, who, being registered for the B.C.L. degree or for the National Program, has the highest aggregate standing in the group of courses consisting of Obligations I, Obligations II, Property I, and Property II.

F.R. SCOTT PRIZE IN CONSTITUTIONAL LAW.- A prize valued at $500 established in 1982, with an initial donation from the Honourable Donald J. Johnston, B.C.L. 1958, Robert S. Litvack, B.C.L. 1963, and Me André Brossard, Q.C., Bâtonnier of the Quebec Bar, in honour of Emeritus Professor F.R. Scott, C.C., Q.C., who has been associated with the Faculty of Law for over fifty years and in recognition of his signal contribution to Canadian constitutional legal thought.

It is awarded annually to the student who in the opinion of the Faculty achieves the most distinguished standing in Constitutional Law in the undergraduate programme.

ELIZABETH TORRANCE GOLD MEDAL.- Founded in 1864 by John Torrance, Esq., prominent Montreal merchant, in memory of his wife. Their son, Frederick William Torrance, of the Bar of the Province, was for many years professor of Roman Law in this Faculty and a judge of the Superior Court. The medal was first awarded in 1865 to Norman William Trenholme, who became successively a professor, and then Dean of this Faculty, a judge of the Superior Court and then of the Queen's Bench, and ultimately Acting Chief Justice of the Province. The medal shares the lustre of the achievements of many other graduates distinguished at the Bar and on the Bench, amongst them the Right Honourable Charles J. Doherty, Hon. Mr. Justice Pierre-Basile Mignault, Aimé Geoffrion, K.C., and Arnold Wainwright, K.C.

It is awarded to the student who obtains, with the highest standing throughout the B.C.L. Program, the B.C.L. degree as the first law degree at a spring convocation.

JOSEPH TREIGER MEMORIAL AWARD.- Founded in 1974 by the Law Undergraduate Society, in memory of the late Joseph Murray Treiger, B.A. (Hons.) (1948-1973), a member of the Society whose untimely death occurred during the final year of his studies in the Faculty of Law.

Awarded every second year in the amount of $100 to a law undergraduate student who, at the beginning of the third year of undergraduate law studies, had demonstrated both financial need and an interest in serving this community. Awarded by the Director of Student Aid.

GERALD S. TRITT, Q.C. PRIZE.- A prize valued at $100, established in 1961 by the family and friends of Mr. G.S. Tritt (B.C.L. 1907) and Mrs. Tritt and awarded to the student with the highest standing in the Special Contracts course.

WAINWRIGHT ESSAY PRIZE.- Established under the bequest of the late Arnold Wainwright, Q.C. (1879-1967), B.A. (1899), B.C.L. (1902), D.C.L. (1963). A prize of $500 will be awarded for the best written contribution by an undergraduate law student, whether the contribution be an essay or other paper and whether written as an elective or as part of a course requirement, or voluntarily. It will only be awarded if a high standard is achieved.

WILSON AND LAFLEUR (LIMITÉE) AWARD.- This award of $100 is made every alternate year to a deserving first year student selected by the Faculty.

No scholarships or prizes will be awarded if, in the opinion of the Faculty, there is no candidate of sufficient merit.

9.3 LOAN FUNDS

The **A. FLEMING LOAN FUND** was established in 1954 by Mr. A. Fleming to aid students in the Faculty of Law. Application should be made to the Student Aid Office.

THE 125TH ANNIVERSARY STUDENT LOAN FUND.- Established in 1979 through the generosity of graduates of the McGill Faculty of Law on the 125th Anniversary of the Faculty, to aid students in the Faculty who, during the course of the academic year are in serious need of emergency financial assistance and who are unable to obtain financial as-

sistance from any other source. Application should be made to the Admissions Office.

The **LOUIS DE ZWIREK, Q.C. LOAN FUND** was established in 1969 by his widow in honour of her late husband from the Estate to aid students in the Faculty of Law. Application should be made to the Student Aid Office.

9.4 BURSARIES, PRIZES AND LOAN FUNDS IN ALL FACULTIES

A complete list of scholarships and bursaries in the University generally and the regulations governing the various loan funds are given in the Undergraduate Scholarships and Awards Announcement which may be obtained at the Registrar"s Office.

10 REGISTRATION, FEES AND COMMENCEMENT OF CLASSES

Registration in all years of Law is on September 7, 1982. All students must register in person.

First year orientation will be held on September 7. Lectures in all years will begin on September 8.

Students registering late will be required to pay a late registration fee and should read carefully the regulation concerning late registration.

Students in upper years are required at the end of the winter term (and by a date to be announced) to complete an early registration form indicating their course selections for the next academic year.

DEPOSIT

Students whose application for admission has been approved must send a deposit of $100 by certified cheque or money order made payable to McGill University within ten days of receiving notification of their acceptance. This deposit is not refundable.

FEES

The university reserves the right prior to registration to make changes without notice in the published scale of fees.

Fees are not refundable except under special conditions. See the *General Announcement* for regulations.

Tuition fees are charged at the rate of $19 per credit ($145.00 for new foreign students; $116.70 for returning foreign students). Student Services and Student Societies fees will be separately assessed and must be paid at the same time as the tuition fees. The maximum fee for Student Services and Student Societies payable by a full-time student is $190 which includes $11 for the McGill Law Journal. These fees are subject to change without notice.

Students will receive, free of charge, brief outlines of courses where such are available. They also will be charged $36 for course materials issued by the professor (apart from casebooks, statutes, etc. which will be sold through the McGill Bookstore.) $18 will be charged at the September registration and the remaining $18 at the second term registration.

Students will require books and casebooks for their courses which may cost in excess of $500 per year.

APPLICATION FOR GRADUATION FEE

Applications by students who expect to graduate at the spring convocation must be filed by April 1 of each year and by those who expect to graduate at the fall convocation by October 15 of each year. An application form will be mailed to each eligible student and must be returned to the Registrar's Office together with the application for graduation fee of $25.00 by the appropriate date listed above. It is the students' responsibility to inform the appropriate faculty or school that they expect to graduate in order to ensure that their names are included in the graduation list. An additional $5.00 is required if a second degree or diploma is awarded at the same time e.g. B.C.L. and LL.B.

COMPULSORY HEALTH INSURANCE FOR NON-CANADIAN STUDENTS

All full-time, non-Canadian students (including landed immigrants during their first year at McGill) must take out a health insurance policy, which is available on a group basis at a cost of approximately $140 to $160 per student per year for single students and $270 to $290 per year for married students. In general, the policy provides for payment towards hospital, surgical, medical diagnostic and other medical expenses.

NEW STUDENTS

Students entering the University for the first time are required to pay their fees either by mail or in person at the Accounting Office.

The first instalment is due within ten days after registration, the second instalment by January 15, 1983.

RETURNING STUDENTS

Students who have completed one or more years and who intend to register in the succeeding year must pay one half of the total sessional fee by mail or in person at the Accounting Office before August 20, 1982, otherwise they will not be permitted to register. Instructions for paying fees in advance will be mailed to non-first year students. Students who have been notified by the University of the award of

a scholarship, bursary or student loan, and who require this for payment of the first instalment of fees, must obtain from the Student Aid Officer, McGill University, a Permit to delay payment of fees.

The second instalment is due by January 15, 1983. A late payment fee as stated below is charged for payment after this date.

SPECIAL STUDENTS AND STUDENTS NOT REGISTERED IN THE FACULTY

Students from other parts of the University who are taking courses jointly given with the Faculty of Law, should register with the Student Affairs Office at the beginning of each term. Students from outside the University who wish to take one or more courses in the Faculty should initially apply to the Admissions Office for permission to do so. If such permission is granted, these students must then register with the Student Affairs Office.

LATE REGISTERING STUDENTS

Students registering late must pay their fees at the time of registration.

Transcripts of records, diplomas and permission to re-register will be withheld if tuition fees as well as outstanding residence fees, library fines or other charges are not paid by the specified dates.

Late registration $50.00
Late payment fee (after specified date):
1st 30 days $10.00
After 30 days $25.00

PROXY REGISTRATION

Students who are unable to attend registration may make arrangements to register by proxy. A Registration Proxy Form must be obtained from the Student Affairs Office. Students may be exempted from the late registration fee only on the written authorization of the Associate Dean.

ADDITIONAL INFORMATION

Further information concerning admission, entrance requirements, degrees, student services, transcripts of record, special fees and residential facilities, is published in the *General Announcement,* which may be obtained from the Registrar's Office, F. Cyril James Building, 845 Sherbrooke St. West, Montreal, P.Q., Canada H3A 2T5.

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Montreal

Graduate School of Library Science

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1982/1983 McGill

1982-83 GRADUATE SCHOOL OF LIBRARY SCIENCE

Under the administrative jurisdiction of the Faculty of Graduate Studies and Research



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The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

Legal Deposit II 82

CALENDAR FOR SESSION 1982-83

	1982
September 8, Wednesday	Enrolment of first year students
September 8, Wednesday to September 14, Tuesday (incl.)	Orientation Program for first year students
September 13, Monday	Lectures begin for second year students
September 15, Wednesday	Lectures begin for first year students
October 11, Monday	Thanksgiving holiday
December 13, Monday to December 17, Friday	Examinations
December 17, Friday	Fall term ends
	1983
January 10, Monday	Winter term lectures begin
February 4, Fri. and February 5, Sat.	Mid-term holiday
February 24, Thurs. and February 25, Fri.	Study Break
April 1, Friday to April 4, Monday (incl.)	Easter Vacation
April 18, Monday to April 22, Friday	Examinations
April 22, Friday	Winter term ends
T.B.A.	Convocation

1 STAFF

1.1 ADMINISTRATIVE OFFICERS

UNIVERSITY

DAVID L. JOHNSTON, A.B.(Harv.), LL.B. (Cantab. & Queen's), LL.D. (L.S.U.C.) **Principal and Vice-Chancellor**

S.O. FREEDMAN, B.Sc., M.D., C.M.(McG). F.R.C.P. (C), F.A.C.P., F.R.S.C. **Vice-Principal (Academic)**

JOHN ARMOUR, AACA **Vice-Principal (Administration and Finance)**

E.J. STANSBURY, M.A., Ph.D.(Tor.) **Vice-Principal (Planning and Academic Services)**

G.A. MACLACHLAN, B.Sc., M.A.(Sask.), Ph.D. (Man.) **Vice-Principal (Research)**

L.E. LLOYD, B.Sc(Agr.), M.Sc., Ph.D.(McG). **Vice-Principal (Macdonald Campus)**

COLIN M. McDOUGALL, D.S.O., B.A.(McG.) **Secretary-General**

MICHAEL HERSCHORN, M.A., Ph.D(McG.). **Dean of Students**

JEAN-PAUL SCHULLER, B.A.(Ott.) **Registrar**

PEGGY SHEPPARD, B.Ed.(McG.), B.A.(Sir G. Wms.) **Director Admissions Office**

ALTA ABRAMOWITZ, B.A. M.Ed.(McG.) **Information & Liaison Office, Director**

MARIANNE SCOTT, B.A., B.L.S.(McG.). **Director University Libraries**

GRADUATE SCHOOL OF LIBRARY SCIENCE

HANS MÖLLER, Ph.D.(Copenhagen) **Director, Graduate School of Library Science**

STEPHANIE BOTH, B.A.(Sir G. Wms.), B.L.S.(Tor.), M.L.S.(McG.) **Library Science Librarian**

SONIA PROUDIAN **Administrative Assistant**

1.2 LIBRARY SCHOOL STAFF

CAMILLE CÔTÉ, B.A.(Montr.), M.L.S.(Catholic), B.P.d(Montr.) **Associate Professor**

VIOLET L. COUGHLIN, B.Sc.,B.L.S.(McG.), M.S., D.L.S.(Col.) **Emeritus Professor**

HELEN HOWARD, B.A. (Queen's), B.L.S.,M.L.S. (McG.). Ph.D. (Rutgers) **Associate Professor**

CHARLIE D. HURT III, B.A. (Virginia), M.S.L.S. (Kentucky), Ph.D. (Wis.) **Assistant Professor**

JOHN E. LEIDE, B.S. (MIT), M.S. (Wis.), Ph.D. (Rutgers) **Assistant Professor**

PETER F. McNALLY, B.A.(W. Ont.), B.L.S., M.L.S., M.A.(McG.) **Associate Professor**

DIANE MITTERMEYER, B.A., B.L.S. (Montr.), M.L.S. (Tor.) **Assistant Professor**

HANS MÖLLER, Ph.D. (Copenhagen) **Director and Associate Professor**

MIRIAM TEES, B.A., B.L.S., M.L.S.(McG.) **Associate Professor**

EFFIE C. ASTBURY, B.A., B.L.S.(McG.), M.L.S.(Tor.). **Emeritus Professor**

1.3 SESSIONAL LECTURERS

JOY BENNETT, B.A., M.A. (Sir G. Wms.), M.L.S. (McG.). **Interlibrary Loans Librarian, Concordia University**

ELEANOR BLUM, B.A. (Miss. State College), B.S. Library Service (Col.), Ph.D. (III.) (Summer 1982)

MARCEL CAYA, B.A.(Montr.), L.L.(Sher.), M.A. (Car.), Ph.D.(York)**University Archivist, McGill**

WILLIAM M. CURRAN, B.A. (Loyola), M.Ed. (Ottawa), M.L.S.(McG) **Librarian, The Royal Bank of Canada**

FRANCES GROEN, B.A., B.L.S.(Tor.), M.A.(Pitts.) **Life Sciences Area Librarian, McGill**

ELIZABETH LEWIS, B.A., B.L.S.(McG.) **Rare Books and Special Collections Librarian, McGill**

BRIAN M. OWENS, B.A. (Alta.), M.L. (Wash.) **Archivist, McGill**

JOHN PARKHILL, B.A., M.A. (Queen's), B.L.S. (McG), A.M. (Harv.) (Summer 1982)

MICHAEL L. RENSHAWE, B.A., M.L.S., J.D. (Maryland) **Law Area Librarian, McGill**

MARIA VARVARIKOS, B.A., M.L.S.(McG.) Children's Librarian **Westmount Public Library**

MICHAEL G. WERLEMAN, B.Arch.(McG.), M.R.A.I.C. **Architect, Sankey Associates**

2 GRADUATE SCHOOL OF LIBRARY SCIENCE

2.1 GOALS AND OBJECTIVES

In the broadest statement of its goals, the School exists to better social, cultural, and economic conditions by facilitating and expediting acess to information required by people at all ages and levels. The major activity of the Faculty is the provision of graduate-level education for information professionals who will staff present and evolving forms of libraries and related institutions. As individuals, members of the Faculty contribute to the development of their profession by presenting the results of their scholarly inquiries, and by leadership activites in appropriate associations. To the University and to the communities which it serves, they also provide insight as to how an information-conscious society can maximize its information-handing capability.

The specific immediate educational objectives are:

1. To provide students with an understanding of the basic principles and practices of library and information science sufficient for entry into professional positions ordinarily filled by new graduates of ALA-accredited library schools.
2. To provide students with the instructional resources necessary to their development of professional specialties in a reasonable number of areas, and to a reasonable level of expertise.
3. To introduce students to the basic concepts and practices of technological innovation, particularly the use of computerized processing systems.
4. To develop amongst students not only basic managerial skills, but also an awareness of the contributions of professional management students to library and information science.
5. To prepare McGill graduates to participate fully in the cultural milieu of Québec, and to be able to interpret it outside of Québec.
6. To prepare students to be fexible and innovative in their approach to careers in librarianship.
7. To provide continuing education opportunities in those areas of library or library-related studies in which suitable expertise either exists or can be arranged, in educational formats appropriate to the course materials and to the prospective students.

2.2 HISTORY OF THE SCHOOL

McGill University was the first institution in Canada to provide library training and the first to grant a degree in library science. Short summer programs were given from 1904-1927, the first regular sessional program being given in 1927-28. The program of the School was accredited by the Board of Education for Librarianship of the American Library Association, and the B.L.S. (5th year) degree was first conferred in May 1931. In the session of 1956-57, a 6th year Master of Library Science degree was first offered. After 1964-65 the 5th year degree was discontinued and the M.L.S. degree awarded after two years of full-time graduate study. The school is presently accredited by the Committee on Accreditation of the American Library Association.

2.3 RELATIONSHIP TO THE PROFESSION

The School is an institutional member of the Canadian Association of Library Schools (CALS) and the Association of American Library Schools (AALS). Individual faculty members belong to many Canadian and international associations and are active in working on committees and projects in many professional areas.

There are very good relationships between the School and the local professional community. The School provides continuing education for librarians in the community, and often acts as host to association meetings and workshops.

The School maintains close liaison with the Corporation des bibliothécaires professionels du Québec / Corporation of Professional Librarians of Québec, which has the sole legal authority to enable a practitioner in Québec to use the title "Professional Librarian".

The Act establishing the Corporation defines a professional in the field of librarianship as one "whose principal functions are: a) to establish, develop and administer libraries or documentation centres with a view to scientifically preserving human knowledge in any form; b) to classify and organize means for preserving human knowledge according to the scientific methods currently taught in universities; c) to render human knowledge accessible to institutions and persons by introducing the necessary methods to make use of the services of libraries and to establish a local library system connected with any regional, provincial, federal or international system."

Graduates of McGill's Library Science program, do indeed perform all of these functions as librarians or information scientists in a variety of library settings: special, university, public, and governmental; they have also been

connected with the development of the larger information systems at all levels mentioned in the Act. To state that the School's program aims to prepare its graduates to play a dynamic role in the operation of the libraries of today, to be flexible and perceptive of the need to adjust to new modes in the future, is also to state that the School itself is dynamic, flexible, and responsive to change.

2.4 RELATIONSHIP TO THE UNIVERSITY

The Graduate School of Library Science is part of the Faculty of Graduate Studies and Research of McGill University; its students are able to participate fully in the varied life of a large university. Further, they are not only allowed but encouraged to elect courses in other units of the University (see 6.3) Similarly, faculty members whose prime areas of responsibility lie outside Library Science, but whose expertise relates to librarianship, participate directly in the instructional program of the school as sessional and special lecturers.

2.5 FACILITIES

The School is located on the street floor of the McLennan Library Building in quarters especially designed for it. Within easy access of each other are the administrative offices, faculty offices, lecture and seminar rooms, laboratories for cataloguing, data processing, and audio-visual materials, and the Library Science Library and the University Archives. Student amenities include a lounge, kitchen facilities, lockers, and typewriters. An Alumni and Special Projects office provides separate work space for student officers, the student newspaper, and the student chapter of the Special Libraries Association.

The facilities of the School, combined with its downtown location close to public transportation, make it an attractive place for evening courses and professional meetings.

2.5.1 Data Processing Facilities

Through the terminals in the School's Cataloguing and Data Processing Laboratories, students have access to MUSIC (McGill University System for Interactive Computing), and to the operating system of the Centre. There is dial-up access to online search services provided by governmental and commercial database vendors in Canada and the U.S. Students also have educational use of UTLAS (University of Toronto Library Automation Systems) which supports bilingual shared cataloguing in many large library systems in North America and OCLC (Online Computer Library Center), a major American bibliographic utility.

2.5.2 Library Facilities

McGill Library System

Library Science students have access to one of the continent's major research resources in the McGil Library System, which consists of five area libraries: Humanities and Social Sciences Area Library, Law Library, Life Sciences Area Library, Physical Sciences & Engineering Area Library, and the Undergraduate Library. Together these libraries house over two million volumes providing a valuable collection for research and study purposes. The Library system is described in detail in the *General Announcement* of the University.

The Library Science Library

The Library Science Library, which is part of the Humanities and Social Sciences Area, performs a primary function of serving the School's students and faculty in curricular and research work and a secondary service function to the McGill community and practising librarians in the Montreal area. As of 1981 the collection consisted of about 32,000 monographs; new books are added constantly. The monograph collection is supplemented by periodicals holdings of approximately 700 volumes relating to the curriculum. In addition to the main body of professional literature and literature in related fields (such as educational theory and methodology, publishing and printing, communication, documentation, audiovisual media, management, automation, etc.) there is a collection of rare children's books and current children's and young adult literature. To supplement regular class instruction, students are encouraged to examine the Library's internal files.

2.5.3 Archives

Located on the same floor of the McLennan Library Building as the School, the McGill University Archives preserves and makes available to researchers of all disciplines more than 2400 m of primary documentation of permanent value generated over the past 180 years. It offers laboratory conditions for students doing independent studies or practical projects for the archives and records management courses. Its Central microfilm unit is responsible for all microfilming projects throughout the University and, as such, can help students become familiar with micrographics and other new technologies relevant to the non-print documentation. The Archives also possesses a working library of materials relating to archival science, micrographics and records.

3 ADMISSIONS AND REGISTRATION

3.1 LENGTH OF STUDY

The M.L.S. degree is awarded after successful completion of the equivalent of two academic years of graduate study. The first year of the program is normally taken full-time; the second year may be completed by part-time study.

3.2 ADMISSION REQUIREMENTS

3.2.1 First Year Class (M.L.S.I)

1) Applicants for admission must have a B.A. or B.Sc. degree from a recognized university. The School will take into account the character of the applicants' undergraduate studies and their suitability for library work. Courses in the natural sciences, social sciences, and humanities are preferred as forming a suitable basis for studies in library science. Courses of a purely vocational or professional nature cannot be counted as fulfilling this requirement, which is intended to ensure an adequate academic preparation. Academic standing of at least B, or second class, or GPA of 2.8 is required.

2) A knowledge of at least one language other than English is expected; French is highly recommended.

3) A knowledge of basic statistics or data processing is highly desirable.

4) Application forms may be obtained from the School and when completed, should be returned to the School. Official transcripts of the applicant's university record must also be supplied. Deadline for receipt of application forms for entrance into the first year of the program is June 1 (April 1 for overseas students). As enrolment is limited, early application is advisable.

5) Previous library experience, while not essential, will be given consideration in assessing an application.

6) Courses in library and/or information science taken before the B.A., or such courses taken in a school not accredited by the American Library Association, cannot be accepted either as fulfilling the entrance requirement or as credit toward the McGill M.L.S.

3.2.2 Second Year Class (M.L.S.II)

A student who has obtained a B.L.S. or an M.L.S. with satisfactory standing from an accredited library school will be considered for admission into the second year. A student who has completed the first year with satisfactory standing at another accredited Canadian library school with a two-year program may be permitted to transfer into second year. The applicant must have academic and other qualifications acceptable for entrance into McGill's M.L.S. program and have taken the core courses required in the first year M.L.S. at McGill. In such cases the full program of the second year, or its equivalent, must be taken at McGill, and should be approved by the Director after consultation with the Faculty adviser. These students may participate in the first three days of the Orientation Program (see 5.1) if they wish.

3.2.3 Overseas Students

Students from outside the North American continent must apply by April 1. For those whose day-to-day language is not English, a minimum score of 550 on the Test of English as a Foreign Language (TOEFL) is required for admission.

Overseas students should plan to arrive well before the beginning of term and must present themselves at the School no later than Tuesday, September 7.

3.2.4 Special Students

Students who possess the B.L.S. or M.L.S. are welcome to register for any elective courses for which they fulfill the necessary prerequisites. At the discretion of the Director, work experience may be substituted for such prerequisites. Enrolment is subject to the condition that regular students have priority in cases of class size restrictions.

3.2.5 Continuing Education

The Continuing Education program is described in Section 7. Courses are open to people holding M.L.S. or B.L.S. degrees, or, in special circumstances, to others with exceptional experience in libraries. Registration is through the Centre for Continuing Education, with the approval of the Director of the School. Credit is not given for these courses.

3.3 WORK EXPERIENCE

All students, and especially those without previous experience of library work, are strongly advised to work in a library during the summer period between the end of the first year session and the second year of the program.

Students who need to work while studying Library Science should consult the Director if they plan to work more than 12 hours per week during the academic year. In no case should they take full-time positions in the second year, even with reduced study programs. Fur-

thermore, the many complexities associated with course scheduling makes it impossible for the School to design schedules that accommodate the time requirements of part-time jobs, particularly those involving day-time hours. Equally difficult to accommodate are the time-tables of commuters; long-distance daily commuting is therefore discouraged.

3.4 REGISTRATION

M.L.S.I students register at the School on Wednesday, September 8; returning students register at the beginning of 2nd year program on Monday, September 13.

4 GENERAL INFORMATION

4.1 BOARD AND RESIDENCE

Information regarding accommodation can be found in the *General Announcement* available from the Registrar's Office, 845 Sherbrooke St. West, Montreal, PQ H3A 2T5

4.2 STUDENT SERVICES

Full information concerning Student Services is given in the *General Announcement.*

4.3 FEES AND EXPENSES

4.3.1 Tuition Fees

The University reserves the right to make changes without notice in the published scale of fees.

Fees are due and payable 10 days after formal registration in the Faculty of Graduate Studies and Research. A late fee is charged for payment after the specified dates, and no days of grace are allowed. Fees may be paid in two instalments; second instalment payable January 15, 1983.

	Tuition per term	Tuition Foreign Students per term	Student Societies per term	Student Services per term
Master's				
— Full-time	$19 per credit	($145.00 per credit)	$21.75	$47.50
— Part-time	$19 per credit	($145.00 per credit)[2]	$13.85	($ 1.25 per credit)[2]
— Additional Session (after completion of four terms)	$20	($87.50)	$ 8.85	[1]
Special & Visiting	$19 per credit	($145.00 per credit)	$13.85 (load must be less than 12 credits per term)	$ 1.25 per credit

The minimum tuition fee for M.L.S. is $1,026 ($7430.40 for new foreign students).

1 Students who wish to use any of the Student Services such as Athletics, Health Service, and Guidance Service should purchase a sticker for their identity card from the Department of Athletics, 475 Pine Avenue W. or from the Dean of Students Office, Rm. 211, 3637 Peel Street. The cost is $47.50 for the Fall and Winter Terms.

2 Does not include Athletics. Athletics privileges can be purchased from the Department of Athletics at 475 Pine Avenue West or from the Dean of Students Office, Rm. 211, 3637 Peel St. The cost is $95 for the Fall and Winter terms.

SPECIAL FEES

Application for Admission	$15.00
Application for Graduation Fee	$25.00

Information concerning other special fees may be found in the *General Announcement* and the General Section of the *Announcement of the Faculty of Graduate Studies and Research.*

CONTINUING EDUCATION

$57 per three-credit course elected through the Center for continuing Education (see section 7).

Workshops and seminars are priced in dividually; fees are indicated in the special announcements.

4.3.2 Textbooks and Materials

Students should allow approximately $250 per term for textbooks and supplies. These are available from the University Bookstore and the School. Students in advanced data processing courses accessing external information systems are given a suitable amount of free connect time and may purchase additional time at special student rates.

4.4 FINANCIAL AID AND AWARDS

4.4.1 Scholarships and Fellowships Awarded in the Graduate School of Library Science

Applicants accepted for admission to the program leading to the degree of Master of Library Science and students entering the 2nd year of the program may apply to the Director of the

School before March 1 to be considered for the following awards which are made, after due investigation and recommendation, to deserving students who require financial assistance.

JANET AGNEW SCHOLARSHIP IN THE GRADUATE SCHOOL OF LIBRARY SCIENCE. Value: $400. Established from a bequest of the late Janet M. Agnew, a graduate of and former instructor in the School.

ETHELWYN M. CROSSLEY SCHOLARSHIP FUND. $400 from the fund founded in honour of a former student of the School.

SYRA DEENA TARSHIS FLEISHMAN BURSARY. $200 from the fund founded in memory of a former student of the School.

ELIZABETH G. HALL SCHOLARSHIP FUND. $400 from the fund founded in honour of a former member of the McGill University Library staff.

PATRICIA KEIR AWARD IN LIBRARY SCIENCE. $400 from a gift by Patrica Keir to be awarded annually to a first year Library Science student in the area of Archival Science who intends to study in the area of Rare Books.

DR. G.R. LOMER SCHOLARSHIPS. Three annual scholarships of $660 each in honour of the late Dr. G.R. Lomer, former Director of the School.

H.W. WILSON SCHOLARSHIPS. A grant in the amount of $3,000 made on a rotating basis to schools with graduate library programs accredited by the American Library Association, for distribution as scholarship aid in amounts and manner considered appropriate by the schools.

AMUL AWARD IN LIBRARY SCIENCE. $250 established by the Association of McGill University Librarians (AMUL). To be granted to a student admitted to the first year program of the Graduate School of Library Science. To be eligible, applicants must be presently employed full-time library assistants who will have completed two years' continuous full-time employment with the McGill University Library System before the deadline for application March 1.

4.4.2 Scholarships and Fellowships Awarded by Outside Agencies

L'ASTED (l'Association pour l'avancement des sciences et des techniques de la documentation) décerne chaque année une bourse à un étudiant de 2e année de maîtrise en bibliothéconomie (McGill ou Montréal). Pour de plus amples renseignements, écrire à l'ASTED, 360, rue Le Moyne, Montréal, Québec H2Y 1Y3.

The *Canadian Library Association* offers the following scholarships:
Howard V. Phalin-World Book Graduate Scholarship in Library Science. Maximum $2,500; Number available: One; Duration: One academic year, i.e., two semesters or three quarters; Tenable: At an accredited library school in either Canada or the United States.
Normally candidates will already hold a B.L.S. or an M.L.S. degree but in exceptional circumstances consideration will be given to an outstanding candidate with a degree in another discipline who wishes to obtain a B.L.S. or an M.L.S. Conditions: Award must be used for a program of study or series of courses either leading to a further library degree or related to library work in which the candidate is currently engaged or to library work which will be undertaken on completion of the program or courses. Must be Canadian citizen or have landed immigrant status.

H.W. Wilson Foundation Scholarship. $2,000; Number available: One; Duration: One year; Tenable: For entrance to an accredited Canadian library school. Consideration given to academic standing and financial need. Conditions: Must be Canadian citizen or have landed immigrant status; must be a candidate for the first professional library degree.

CLA Dafoe Scholarship. $1,750; Number available: One; Duration: One year; Tenable: For entrance to an accredited Canadian library school. Consideration given to academic standing and financial need. Conditions: Must be Canadian citizen or have landed immigrant status; must be a candidate for the first professional library degree.

Deadlines for all scholarships: March 1. For further information or application forms: Scholarships and Awards Committee, Canadian Library Association, 151 Sparks Street, Ottawa, Ontario K1P 5E3.

The *Special Libraries Association* offers up to three $3,000 scholarships for graduate study leading to a master's degree at a recognized school of library or information science in the United States or Canada. College graduates or college seniors (citizens of the U.S. or Canada) with an interest in special librarianship are eligible. Work experience in a special library is helpful. Further information and application forms may be obtained by writing to the Special Libraries Association, Scholarship Committee, 235 Park Avenue South, New York, N.Y. 10003. Applications must be filed by January 15.

The *National Research Council of Canada*, in cooperation with the Advisory Board for Scientific and Technological Information, offers a

limited number of scholarships to assist science or engineering graduates to obtain advanced degrees in the fields of science librarianship and documentation. The awards are made on the basis of high scholastic achievement and evidence of suitability for a career as a science librarian or science information specialist. Applicants must be Canadian citizens or landed immigrants. All communication regarding these scholarships should be addressed to: The Scholarship Officer, Office of Grants and Scholarships, National Research Council of Canada, Ottawa, Ontario K1A 0R6. Application must be filed not later than December 1.

The *Canadian Federation Of University Women* offers a professional fellowship with a value of $3,500 open to any woman who has completed a degree from a Canadian university, who is a Canadian citizen or who has held permanent resident status for one year prior to submitting application and who wishes to pursue graduate work at an accredited professional school. Information and application forms may be obtained from the Canadian Federation of University Women, *before July 31, 1982:* Université de Montréal C.P. 6128, Succ. "A" Montréal, Québec H3C 3J7; *after July 31, 1982:* Malaspina College, Wakefiah Campus, 900 5th Street, Nanaimo, BC V9R 1P9.

Beta Phi Mu, the International Library Science Honor Society, offers a scholarship with a value of $1,000 to a student at the Master's level accepted in an American Library Association accredited program. Application forms are available from the Executive Secretary, Beta Phi Mu, Graduate School of Library and Information Sciences, University of Pittsburgh, Pittsburgh, PA 15260. Deadline for application is March 15.

The Canadian government under the *Commonwealth Scholarship and Fellowship plan* offers scholarships for students from other Commonwealth countries to study in Canada. Awards are usually made for two academic years and cover return transportation, tuition fees, and a grant for personal and incidental expenses. Information and application forms may be obtained from the Association of Universities and Colleges of Canada, 151 Slater Street, Ottawa, Ontario K1P 5N1.

4.4.3 Fellowships Awarded by The Universitly

Students will be considered for fellowships administered by the Faculty of Graduate Studies and Research for which they are eligible. These include the J.W. McConnell Memorial Fellowships and the Graduate Faculty Research Fellowship Programs for graduate students in all disciplines. Details of these awards are found in the booklet *Postgraduate Fellowships, Bursaries, Loan and Prizes.* This booklet and application forms are available from the Fellowships Office, Faculty of Graduate Studies and Research, Dawson Hall, McGill University, 853 Sherbrooke Street West, Montreal, PQ H3A 2T6

4.4.4 Bursaries and Loans

Students in any discipline who are residents of Québec can apply for an F.C.A.C. bourse. Also available to such students is a Québec Bursary and Loan. Application forms and information brochures are available in the Office of the School of Library Science.

Canadian citizens and permanent residents are eligible for a guaranteed student loan in the province or territory where they have resided for a year preceding the date of application. Residents of Québec apply after May 1 at the McGill Student Aid Office, 3637 Peel Street, Montreal, PQ H3A 1X1, for these loan funds financed by the Federal and Provincial governments; residents of other provinces apply through their provincial ministries of education.

Additional information including a list of sources of information on awards for graduate study is provided in the above-mentioned booklet, *Postgraduate, Fellowships, Bursaries, Loans and Prizes.*

4.4.5 Other

American students are also advised to write to the SCOLE (Standing Committee on Library Education), American Library Association, 50 East Huron Street, Chicago, Ill. 60611, for a *copy of Financial Assistance for Library Education.*

4.5 PLACEMENT

The Canada Employment Centre at McGill provides a range of services to McGill students and recent graduates (Canadian citizens or landed immigrants). Students who seek information about career and job opportunities are invited to consult a placement counsellor.

In addition, the School receives and posts notices of job openings throughout North America; the colloquium series includes subjects related to employment.

The School investigates ways in which employers and students can be brought closer together and attempts to monitor professional employment opportunities and developments. The School also seeks information about the careers of its graduates as an aid in planning future placement efforts. Each year, a "Get-Acquainted Day" for employers and second-

year students is held at the School; invitations to attend are sent to a wide range of potential employers.

American students are eligible to compete for Library of Congress and National Library of Medicine internships (information about these is available at the School). They are also eligible for all positions in the U.S. which require graduation from an ALA-accredited school.

4.6 COUNSELLING

The School has a program of counselling for students. It is designed both to help students plan their careers and choose appropriate courses, and to assist students who have particular concerns or problems. Students are assigned Faculty advisers at the beginning of the first term. During orientation week, they will meet each day with their advisers for discussion, and regular group meetings will be scheduled throughout the first year. Before choosing elective courses, students should discuss their plans with their advisers. Though students are free to go to the Director or to discuss courses with any instructor, the advisers are available to talk over any matter of concern.

5 INSTRUCTIONAL PROGRAM

5.1 ORIENTATION PROGRAM

All M.L.S.I students are required to participate in a one-week program designed to introduce them to the many-faceted world of information. Through lectures by faculty and guests, discussion, and tours, they will acquire a framework for courses in librarianship and information science, and a sense of professional identity. Students will be grouped with their faculty advisers for discussion, both during orientation week and afterwards when they will attend a series of colloquia. The week will begin on the Wednesday prior to the beginning of classes and continue through Tuesday. New students entering the M.L.S. II program are invited to participate in the first three days of orientation.

5.2 REQUIRED COURSES

The instructional program consists mainly of required and elective courses; they are supplemented by colloquia and field trips. The first year consists of eight required courses:

FALL TERM

405-605 Reference Materials and Methods I
405-607 Organization of Materials I
405-611 Research Methods I
405-609 Technical Services
OR
405-626 Selection of Materials

WINTER TERM

405-606 Reference Materials and Methods II
405-610 Data Processing
405-620 Management
405-609 Technical Services
OR
405-626 Selection of Materials

In addition, one elective may be taken during the winter term.

5.3 ELECTIVE COURSES

The total of ten electives in the M.L.S. program can be chosen from amongst the over 30 such courses taught during any one academic year; four can be appropriate outside courses (see 6.3). Students can design individualized programs of instruction that take advantage of their backgrounds and interests to prepare them for specialized careers. During their first term of study while they are following the required courses, students should start to investigate their options and discuss their plans and problems with their faculty advisers.

5.4 COLLOQUIA

Guest lectures and colloquia, open to all interested, by specialists and prominent individuals in fields related to the library profession are an important part of the School's instructional program which is integrated with the Orientation Program (see 5.1).

5.5 FIELD TRIPS

In order to gain insight into the diversity of library service first-year students visit the Bibliothèque Nationale du Québec, the Bibliothèque de l'Ecole des hautes études commerciales and a number of other libraries in Montreal, as well as Laval University Library in Québec City. An excursion to Ottawa is arranged, during which students hear lectures about and are given detailed tours of the National Library of Canada and the Canada Institute for Scientific and Technical Information, by members of each institution's own staff. Certain second year courses also involve examination of selected libraries and information centres by smaller groups of students.

5.6 SUMMER COURSES

The School schedules for each summer two or three of those regular courses which lend themselves to a concentrated 3-week format. Instruction is usually by visiting experts. Special institutes or seminars may also be arranged if the opportunity arises. Information regarding the course(s) to be offered in the summer will be made available during the Winter term.

5.7 LANGUAGE POLICY

The language of instruction at McGill is English. Students may write term papers and examinations in French, but reasonable competence in English is essential to succeed. A summer course, English 110-150T is offered and it is recommended that students who lack fluency in English take this summer course before embarking on a program of study at McGill. Information and application material may be obtained by writing directly to the Summer Session Office.

Students who wish to increase their knowledge of French while studying Library Science will find many opportunities for doing so. In addition to the various language courses in Montreal, the School offers two credit courses geared to the needs of those who will work in the French language environment: *Bilingual Information Systems* and *Québec Information Systems,* both requiring some knowledge of the language. The School also sponsors *Library Communications in French* through the Centre for Continuing Education. (See 7.3)

5.8 COURSE SCHEDULES

• Denotes a course which at the time of the preparation of the calendar is not expected to be taught in the next academic year.

Detailed class schedules are sent to students in April and November.

5.9 MARKS

Final marks are based on the term's work and/or on examinations. Classification of marks:

A (85-100%), A – (80-84%), B + (75-79%), B (70-74%), B – (65-69%), and F (less than 65%). Instructors may use either alphabetic or numeric grades.

Students who do not fulfill requirements satisfactorily may be asked to withdraw from the School.

Regulations concerning failures and supplementals appear in the *Graduate Faculty Announcement.*

6 COURSE DESCRIPTIONS

6.1 REQUIRED COURSES

There are 9 courses in the first year, 8 required and 1 elective.

405-605 REFERENCE MATERIALS AND METHODS I. The fall term introduces students to the nature, functions, and types of bibliographies, and to the concept of bibliographic control, in hard copy and machine readable formats, of book and non-book materials.

405-606 REFERENCE MATERIALS AND METHODS II .The winter term concentrates upon two topics. The first is reference service which involves topics such as interviewing techniques and search strategy. The second topic of concentration is factual sources of information like encyclopaedias and dictionaries, and their place within the context of information transfer.

405-607 ORGANIZATION OF MATERIALS I. Introductory course in the techniques of bibliographic control of library materials. Basic cataloguing principles and practices incorporating concepts of main entry, subject analysis and classification according to standard cataloguing codes. The use of the ISBD formats for descriptive cataloguing. Formal instruction is accompanied by practical assignments in a well-equipped cataloguing laboratory.

405-609 TECHNICAL SERVICES. The course considers the entire library system, concentrating on the principles and procedures in such technical processes as acquisitions, circulation control, reserve collections, serials management, and the preservation of materials. Includes some administrative matters such as budget preparation and the effects of the increased use of para-professionals in both manual and automated technical processes.

405-610 DATA PROCESSING. Basic concepts related to data processing and computers and an introduction to the use of computers in and for libraries and related information facilities.

405-611 RESEARCH METHODS I. Examines the fundamental aspects of reflective thinking and the methods and techniques of research approriate to the investigation of library/information problems. Introduces students to criteria helpful in evaluating published research in library/information science by analyzing the various steps of the research process, thereby providing guidelines for planning, conducting, and reporting of research.

405-620 MANAGEMENT. A basic introduction to the field of management including organizational structure, climate, and behaviour. Attention is given to the role of the librarian in complex organizations with particular stress on such topics as planning, leadership, motivation, decision making, supervision, employee relations, and financial accountability.

405-626 SELECTION OF MATERIALS. Principles and practices of selecting, maintaining, and evaluating materials in libraries and similar information facilities. Acquaints students with the essential professional tools, and alerts them to issues that affect collection development.

6.2 ELECTIVE COURSES

405-608 ORGANIZATION OF MATERIALS II. (Prerequisite: 405-607). Cataloguing in depth with a view to such specialties as original cataloguing, catalogue maintenance, and administration of the cataloguing department. Investigation of alternative methods of library documentation. The study of developments in international cataloguing standards, codes, and formats. Includes laboratory sessions.

405-612 HISTORY OF BOOKS AND PRINTING. (Prerequisite: 405-605). Surveyed are the development of writing, alphabets, and books from their inception, and of printing from its invention in the fifteenth century.

405-613 AUDIOVISUAL MATERIALS. The course explores the characteristics of leading types of audio-visual media with respect to technology and user needs. The role of media and the control and management of media in libraries and other information facilities are covered; students will engage in production projects and learn to use projection equipment.

405-614 PUBLIC LIBRARIES. (Prerequisite: 405-620). The history, organization, and development of public libraries with attention to current practices and problems. Emphasis will be on the function of the public library in the community, its social role and its governmental environment, with a focus upon Canadian public libraries.

405-630 COLLECTION DEVELOPMENT. (Prerequisite: 405-626). Standards for research collections and quantitative and qualitative criteria for evaluating them. Formulation of an acquisitions policy and elements of an acquisitions program. Inter-library relationships, library specialization, and cooperative programs as factors in the development of collections. Developing research collections in special subject fields.

405-631 SYSTEMS ANALYSIS. (Prerequisites: 405-605, 405-607, 405-610, 405-611, 405-620). Systems concepts as they apply to the design, implementation, and evaluation of information systems, and particularly Management Information Systems (MIS). Selected techniques are explored in depth; consideration is given to the impact of human behaviour and of computer technology on possible solutions.

405-632 LIBRARY AUTOMATION AND NETWORKING. (Prerequisites: 405-607, 405-610, 405-611). A comparative examination, from the point of view of the user, of important systems, activities, and problems in library automation. Emphasis is on developments and trends.

405-633 INFORMATION STORAGE AND RETRIEVAL. (Prerequisites: 405-606, 405-607, 405-610). Principles of information retrieval and its use in libraries and information facilities; laboratory exercises in online searching, accessing external data bases. Management problems associated with the provision of online search services are also examined.

405-634 DEVELOPMENTS IN CATALOGUING AND CLASSIFICATION I. (Prerequisite: 405-607). Seminar to explore in depth particular problems and research in cataloguing and classification. Topics vary depending on current developments in the "state-of-the-art".

405-635 DEVELOPMENTS IN CATALOGUING AND CLASSIFICATION II. (Prerequisite: 405-607). Course description as for 405-634 above.

405-636 GOVERNMENT PUBLICATIONS. (Prerequisite: 405-605). The nature and scope of official publications of Canada, Great Britain, the United States, and the United Nations; their acquisition, bibliographic organization, and use.

405-637 SCIENTIFIC AND TECHNICAL LITERATURE. (Prerequisite: 405-606). Introduction to the process of communication and information requirements in the scientific community; sources of scientific and technical information; study of representative reference sources in specific fields of basic and applied science.

405-638 BUSINESS LITERATURE. (Prerequisite: 405-606). A survey of the literature used in business including bibliographic and non-bibliographic data bases. Various aspects of business are described to set the scene for a study of the literature. Students examine key publications, and learn to select a basic business bibliography and to do reference work in the field.

405-639 SPECIAL LIBRARIES (Prerequisite: 405-620). A practical course on administration

of special libraries using a simulation technique. Following a general introduction, the class, working in groups, sets up and puts into operation a hypothetical special library. Class discussion and visits to special libraries are of paramount importance.

405-640 COLLEGE AND UNIVERSITY LIBRARIES. (Prerequisite: 405-620). Examines the history, development, and current trends in higher education. Against this background the role and problems of libraries of academic institutions are studied. Topics discussed include administration, organization, service to undergraduates, service to graduate students and faculty, surveys, standards, interlibrary cooperation.

405-642 MATERIALS FOR CHILDREN. Survey of the history of children's literature in English from its beginnings in folk literature through the mid-twentieth century; study of criteria for the selection and evaluation of children's books, traditional and modern; consideration of standard selection aids; and examination of current titles in relation to the child's reading interests, needs, and abilities.

405-643 MATERIALS AND SERVICE FOR YOUNG ADULTS. Study of the interests, needs, and reading habits of young adults; survey of books of special appeal to the adolescent; evaluation, selection, and use of print and non-print materials in high school and public libraries; development of library programs; study of issues related specifically to young adults, including censorship, literacy, and problems of the future.

405-644 RARE BOOKS. (Prerequisite: 405-605). This is a brief, practical course on books in rare book departments, with mention of the different kinds of material to be found there and also a few of the special problems arising in the day-to-day running of such a department. Books, maps, and prints are shown, attendance at a book auction is arranged, as well as a visit to an antiquarian book shop; visiting lecturers speak on their specialties.

405-645 ARCHIVAL SCIENCE. Introduces librarians to the literature on archives, historical manuscripts, and records management. Definitions, principles, and terminology in these three fields are compared with those in library science. Also covers selection, conservation, finding tools, and controls, and the impact of technological developments.

Note: Advanced work in achival science is available to a few students who do well in the introductory course. It is elected as Independent Study, and requires prior consultation with the Unifersity Archivist and the Director.

405-646 RESEARCH PROJECT. (Prerequisite: 405-611, 405-648). A year-long study for students having the necessary experience or academic background. Permission to undertake the study is granted by the Director of the School.

405-647 INDEPENDENT STUDY. (Prerequisite: 405-611). An in-depth exploration of a topic in library science which is not emphasized or elaborated on in any other part of the curriculum. Students electing this option work under the direction of a faculty adviser. Permission to register for this is given to students after consultation with the Director of the School.

405-648 RESEARCH METHODS II. (Prerequisite: 405-611). Introduces the student to data gathering, analysis, and interpretation with a primary emphasis on quantitative methodology. Briefly introduces appropriate parametric and nonparametric measures applicable in the library environment. Computerized statistical packages are also introduced.

405-649 LIBRARY PLANNING AND ARCHITECTURE. This course is concerned first with promotion work, the building committee, the building program, the study of the community, and the determination of the site. It then deals with the problem of space allocation and with furnishings. Renovation, as well as expansion and new buildings are considered. Part of the course is given by an architect and various libraries are visited.

405-650 SERVICE TO CHILDREN. The objectives, standards, functions, and services in school and public library work with children, including trends in the development of elementary and secondary school media centres. The case study method is used in examining problems relating to the organization, administration, and evaluation of children's services.

405-651 REFERENCE SERVICE IN THE HUMANITIES AND SOCIAL SCIENCES. (Prerequisite: 405-606). This course investigates the conceptual orientation of the disciplines and their constituent subjects. Also considered are the information needs of researchers in these fields and the extent to which reference sources meet these needs.

405-652 COMMUNICATION MEDIA AND THE LIBRARY. The intention of the course is to use a model of the communication process to describe the culture and society that is the context of libraries; to analyze the interaction process between the library and the community; to analyze and improve library operations by prediction based on the model.

405-656 INDEXING. (Prerequisite: 405-607). Investigates the principles and practical methods of indexing library materials. Topics include various methods of indexing books, periodicals, newspapers, report literature. Also deals with construction and applications of thesauri, coordinate indexing, and abstracting.

405-660 RECORDS MANAGEMENT. Through a combination of lectures, presentations, and simulation projects, students examine how organizations can manage their unprinted information and control the creation, practical use, maintenance, storage, protection, and disposition of records. In covering new fields such as micrographic and word processing, the course will also deal with the impact of modern technology on the creation and circulation of information.

405-671 BIOMEDICAL LIBRARIES. (Prerequisite: 405-606). Examines differents types of health science libraries; medical schools and organizations in health-related fields; the application of modern library techniques to the management of such libraries; special service problems, and current trends.

405-672 LAW LIBRARIES. (Prerequisite: 405-606). The nature and scope of law librarianship and legal bibliography; discussions of the organization of legal knowledge, the legal profession and the librarian's role in it; hands-on experience with automated information systems.

405-680 BILINGUAL INFORMATION SYSTEMS. (Prerequisites: 405-607, adequate knowledge of French). Deals with utilization of bilingual information systems. Adaptation of English language cataloguing rules, classification systems, indexes and thesauri to a French environment will be discussed. A study of the specialized French language terminology is an integral part of this course.

405-681 QUÉBEC INFORMATION SYSTEMS. (Prerequisites: 405-633, adequate knowledge of French). This course examines the development of Québec information systems, concentrating on those with online retrieval capabilities relating them to systems of non-Québec origin being utilized in Québec.

405-690 ISSUES IN INFORMATION. (Prerequisite: Consent of instructor). A cross-disciplinary examination of present and near-future effects of technological advance, national and international cooperation, copyright laws, rising costs, etc., on the development of new methods of processing and disseminating information and consequent new roles for librarians. Reflecting the Canadian viewpoint, emphasis is on immediate problems and possible solutions.

6.3 OUTSIDE COURSES

The Graduate School of Library Science encourages its students to elect up to four half courses (the equivalent of 12 credits) outside the School provided that the student possesses the necessary prerequisites. Possibilities for graduate study at McGill include not only the usual disciplines which continue from undergraduate programs but also a number of specialized institutes in which study commences at the graduate level. (See the *Announcement of the Faculty of Graduate Studies and Research).*

It is not feasible to list in this Calendar all McGill courses appropriate for election by M.L.S. students since undergraduate study, progress in Library Science, and career plans are all individual matters affecting such decisions. While Library School counsellors are prepared to help, students must take the initiative in contacting the various instructional units to ascertain how they handle outside registrants.

In the following section several courses are listed given by other academic units at McGill. These are selected for their relevance to the study of library and information science.

6.3.1 Faculty of Management

Librarians are increasingly finding professional courses in management helpful in preparing themselves for careers which call for managerial skills. Of the many courses in the McGill M.B.A. I program, three have been identified as particularly suited to the needs and interests of students in the M.L.S. program as follows. For further information, students are invited to consult Professor Roger C. Bennett in the Faculty of Management.

271-611 ACCOUNTING — A MANAGEMENT APPROACH.

272-621 ORGANIZATIONAL BEHAVIOUR.

275-651 MARKETING MANAGEMENT I.

Courses in the developing area of Management Information Systems are also relevant, and attract the attention of library science students.

273-635 ADVANCED TOPICS IN SYSTEMS TECHNOLOGY.

273-636 INFORMATION SYSTEMS ADMINISTRATION.

273-637 INFORMATION SYSTEMS DESIGN.

273-638 ADVANCED TOPICS IN SYSTEMS APPLICATIONS. (Pre-requisite: Computers 273-631).

6.3.2 Faculty of Education

A number of courses are recommended to students, who take a particular interest in library service to children and young adults, and particularly in school librarianship and audio-visual service in libraries. More details about the following courses may be obtained from the Director or from Professor David Smith, Associate Dean (Academic), Faculty of Education.

433-325 CHILDREN'S LITERATURE.

433-466 READING IN THE CONTENT FIELDS.

430-390 SECONDARY SCHOOL CURRICULUM.

411-642 DEVELOPMENT AND ADMINISTRATION OF THE SCHOOL CURRICULUM. (full course)

411-646 EDUCATIONAL PLANNING AND MANAGEMENT.

432-406 MANAGEMENT OF EDUCATIONAL MEDIA SERVICES.

432-309 THE LIBRARY RESOURCE CENTRE.

414-618 DESIGN AND EVALUATION OF INSTRUCTIONAL MATERIALS. (full course)

414-619 THE COMPUTER IN EDUCATION. (full course)

412-620 ADVANCED CHILD PSYCHOLOGY.

412-640 ADOLESCENT DEVELOPMENT.

433-467 SPECIAL TOPICS IN READING.

432-404 CONTEMPORARY DEVELOPMENTS IN EDUCATIONAL MEDIA.

414-592 PSYCHOLOGY AND INSTRUCTIONAL DESIGN.

6.3.3 Faculty of Arts, Department of English

This faculty offers several courses of value to students of library and information science. Of particular interest is the interdepartmental communications program offering courses and seminars such as:

109-645 METHODOLOGY.

109-650 LINGUISTIC MODELS IN RELATION TO HUMAN COMMUNICATION ISSUES.

109-660 COMMUNICATION AND DEVELOPMENT.

109-752 RESEARCH SEMINAR IN SPECIAL TOPICS: TECHNOLOGY AND SOCIETY: A CASE STUDY OF TELEMATICS.

109-783 ADVANCED SEMINAR IN THEORIES OF COMMUNICATION: SOCIAL INTERACTIONISM AND CULTURAL STUDIES: ATTEMPTS AT DEFINING THE PROBLEMATICS OF COMMUNICATIONS.

110-275D COMMUNICATIONS AND LITERATURE. (full course)

110-344D LITERATURE AND SCIENCE. (full course)

110-378D CRITICAL APPROACHES TO COMMUNICATIONS STUDIES. (full course)

110-384D STUDIES IN COMMUNICATIONS. (full course)

110-485D MODES OF COMMUNICATION. (full course)

Courses of special value to students interested in children's libraries and school librarianship:

110-340A INTRODUCTION TO CHILDREN'S LITERATURE I.

110-341B INTRODUCTION TO CHILDREN'S LITERATURE II.

110-342B SPECIAL TOPICS IN CHILDREN'S LITERATURE.

6.3.4 Québec Universities

With the permission of the Director, some of the 12 credits in outside courses may be taken at any Québec University, provided the courses are not available at McGill. (Particular attention is drawn to the École de bibliothéconomie de l'Université de Montréal). These courses will be credited towards the M.L.S. degree. For further details, consult the *General Announcement*.

7 CONTINUING EDUCATION

There is a growing realization in professional schools of every type that true professional education is a life-long process. Contributions to that process have, accordingly, been incorporated into the program of the Graduate School of Library Science at McGill. A variety of formats is used, and a variety of students is served, the largest group being librarians holding the M.L.S. degree or its equivalent from schools accredited by the American Library Association. For students holding the accredited B.L.S. (no longer offered in Canada)

continuing education involves either earning the M.L.S. or taking courses without the degree commitment. Librarians holding degrees from schools outside North America may find themselves in this category. Degree-candidate students benefit from the association with working librarians, who in turn encourage the process of updating and innovating the entire instructional program. For requirement for admission see 3.2.5 above.

7.1 DAYTIME COURSES

Most term-long daytime courses in the School are open to librarians with the M.L.S. or B.L.S. Students who are not interested in earning another degree take these courses by applying for status as special students during the terms in which the courses are offered. This also applies to Summer Session.

7.2 EVENING COURSES

Some term-long courses are occasionally offered during the evening to accommodate daytime work schedules. Usually these courses are also available through the Centre for Continuing Education. These courses do not earn graduate credit at McGill.

7.3 LIBRARY COMMUNICATIONS IN FRENCH

Available only through the Centre for Continuing Education is the course especially designed for the Centre: *Library Communications in French* (670-406x-51). Students qualify for this course by the French-language placement test given in August. The purpose of this course is to teach the librarian to communicate in French. Extensive practice in comprehension and expression of oral and written French necessary to function in a French library or to exchange information with a French speaking librarian. Students will be required to do practical assignments in French in their own milieu or in a French library. For further information, contact the Centre for Continuing Education.

7.4 SEMINARS, WORKSHOPS

Also designed especially for continuing education are workshops and seminars. They may be organized to meet particular local needs, or they may be international in their appeal. Students are usually invited to participate in events of this nature, providing further opportunities for interaction between students and practitioners, many of them potential employers.

Continuing education opportunities apart from regular courses are announced in news releases and special mailings. Individuals or institutions who wish to receive the announcements should contact the School and request to be placed on the mailing list.

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Lecturers – M. Blanc, B. Clecner, D. Portnoy, R. Saginur, T. Salo

Associated Members – N. Christou, R. Lalonde, C.K. Osterland, A.R. Poole, H. Rode, R. Saginur

Emeritus Professor – G. Kalz

Neurology and Neurosurgery

Professor and Chairman – D.W. Baxter
Professors – A. Aguayo, F. Andermann, G. Bertrand, G. Bray, S. Carpenter, R. Ethier, W. Feindel *(William Cone Professor of Neurosurgery)*, P. Gloor, I. Heller, G. Karpati, D. Lawrence, B. Milner, H. Pappius, L. Renaud, A. Sherwin, J.G. Stratford, G. Watters, L. Wolfe, Y.L. Yamamoto
Associate Professors – E. Andermann, M. Aubé, J. Blundell, S. Brem, J.B.R. Cosgrove, R. Dykes, M. Finlayson, R. Ford, B. Graham, P.C. Holland, T. Kirkham, I. Libman, B.G. Livett, D. Melançon, C. Melmed, K. Metrakos, A. Olivier, Y. Patel, A. Peterson, L.F. Quesney, M. Rasminsky, D. Trop, J. Woods
Assistant Professors – M. Abou-Madi, J. Arpin, E. Bass, A. Beaudet, S. Bekhor, L. Demers-Desrosiers, M. Diksic, I.D. Duncan, S. Gauthier, J. Gotman, M. Gotman, D. Guitton, J. Ives, B. Jones, G. Kostopoulos, Y. Lapierre, A. Morton, N.M.K. Ng Ying Kin, S. Pena, T. Peters, M. Petrides, P. Richardson, Y. Robitaille, H. Rosen, B. Rosenblatt, J. Stewart, G. Tannenbaum, W.F.T. Tatlow, L. Taylor, C. Thompson, J.G. Villemure, J. Wells
Lecturers – J. Carlton, G. Elleker, G. Francis, A. Hakim, P. Herscovitch, M. Lechter, K. Meagher-Villemure, J. Montes, L. Prescott, J. Rubin, K. Silver, C. Strauss, F. Vargha-Khadem
Associated Member – N. Van Gelder
Emeritus Professors – F.L. McNaughton, T.B. Rasmussen

Montreal Neurological Institute

Professor and Director – W. Feindel
Professor and Associate Director (Neurology) – D.W. Baxter
Professor and Associate Director (Neurosurgery) – G. Bertrand
Professor and Associate Director (Neurosciences) – P. Gloor

Obstetrics and Gynecology

Professor and Chairman – R.A.H. Kinch
Professors – B.P. Murphy, K. Ruf, S. Solomon, F.J. Tweedie
Associate Professors – G.H. Arronet, H. Bourne, J. Brawer, E. Coffey, E.B. de Koos, A. deLeon, P. Desjardins, J.R. Dodds, A. Ferenczy, M.M. Gelfand, P. Gillett, M. Hendelman, C. Nucci, A. Papageorgiou, D.R. Popkin, B. Robaire, T.N. Roman, R.J. Seymour, L.P. Smith, G. Tolis, R.H. Usher, D.M. Willis, M.H.V. Young
Assistant Professors – A. Asswad, N.J. Bakar, O.J. Balabanian, A. Benjamin, W. Bilek, P.R. Blahey, M.E. Boyd, N.J. Buka, M. Burman, N.L. Cassar, W.A.R. Cooke, R. Farag, R. Farookhi, P. Fournier, S. Gold, G. Haber, E. Hamilton, A.K. Joshi, R.D. Koby, A.B. Lalonde, E.A. MacCallum, R. McInnes, J.G. Mulcair, R.M. Parsons, R.M.H. Power, M. Sabin, D. Schaffelburg, V.M. Senikas, R.M. Shatz, M. Shore, J. Stocker, D. Wiener, B. Yufe
Lecturers – N. Bakar, S. Bodnar, N. Brassard, R. Bull, N.H. Chapman, A.A. Chidiac, N. Choudhury, J.R. de St-Victor, C. Fortin, J.C. Fournier, A. Gabor, K. Gemayel, I. Glassman, I. Glickman, W. Goldsmith, M. Guralnick, I. Hierz, L. Ketchian, G. Mallough, K. Maraghi, G. Marquette, M. Martin, A. Mok, J.W. Patrick, E. Phelps, R. Pilorgé, W.D. Polan, L.M. Sanford, V. Scali, S. Shams, N. Smith, G. Stanimir, E.C. Tucker, T. Tulandi, F. Tzipris, L. Venecek, D. Weiner
Emeritus Professors – K.T. MacFarlane, G.B. Maughan, N.W. Philpott

Ophthalmology

Professor and Chairman – S.B. Murphy
Professor – J.C. Locke
Associate Professors – S. Brownstein, W.B. Jackson, T.H. Kirkham, J.M. Little, D.W.C. Lorenzetti, N.E. Saheb, H.L. Tanenbaum, W. Turnbull
Assistant Professors – D. Anderson, P.L. Davis, M. Kaback, M.K. Khalil, L.S.S. Kirschberg, N. Lake, A.B. Leith, R. Lewandowski, D. Nicolle, R. Polomeno, R.B. Ramsey, J. Rosen, P. Rosenbaum, E. Werner
Lecturers – D. Boyaner, P.A. Capombassis, S. Fichman, M. Flanders, J.A. Foreman, E. Gordon, M. Kwitko, P. Lachapelle, R.W. Pearman, R. Pierson, L. Robidas, K.E. Schirmer, L. Solomon, C.R. Staudenmaier, E.D. Svarc, J.B. Waldron, J. Wise, D. Young
Emeritus Professor – G.A.S. Ramsey

Otolaryngology

Professor and Chairman – J.D. Baxter
Professors – D.G. Doehring, D. Ling
Associate Professors – E. Attia, M.J. Black, K.K. Charan, A. Cohen, W.R.J. Funnell, A. Katsarkas, J.C. McNutt, M. Mendelsohn, W.H. Novick, J.S. Outerbridge, M.D. Schloss, R. Shapiro, G. Shimo
Assistant Professors – H. Caplan, N. Chan, E. Cole, N. Fanous, H.J. Ilecki, R. Lafleur, D. Lecki, M.N. Levitt, S. Schwartz, R. Shenker, G.M. Sinclair, A. Smith
Lecturers– M. Berger, D. Bonnycastle, M. Crago, A. Finesilver, J. Fish, S. Frenkiel, I. Fried, J. Harrison, I. Hoshko, R. Jirsa, A. Lemay, R.M. McMillan, M. Moon, M. Paterson, F. Rudmin, R. Schulman, G. Sejean, R. Springer
Emeritus Professor – W.J. McNally

Pathology

Professor and Chairman – J.B. Richardson *(Miranda Fraser Professor of Comparative Pathology)*
Professors – R. Bolande, S.H. Carpenter, W.P. Duguid, I. Huttner, D.S. Kahn, G. Rona, H. Sheldon *(Strathcona Professor of Pathology)*, G. Tremblay
Associate Professors – M.N. Ahmed, S. Brown-

stein, J.P. de Chadarévian, A. Ferenczy, M.H. Finlayson, R.D.C. Forbes, D.G. Haegert, J. Knaack, J.R.C. Lachance, J.O. Lough, R.P. Michel, D.R. Murphy, T.A. Seemayer, N.S. Wang, B.I. Weigensberg

Assistant Professors – J. Arseneau, B. Artinian, P. Averback, G.R. Berry, M.L. de Champlain, M.F. Chen, L. Desormeau, R. Fraser, S. Jothy, R.H. Latt, M. Mandavia, R.S. Poulsen, Y. Robitaille, A. Rona, P. Schopflocher, H. Srolovitz, S. Tange, M. Vekemans, J. Viloria, A.K. Watters, J.L. Webb, E. Zorychta

Lecturers – L. Bégin, R.H. Buell, J. Emond, C.C. Ferguson, B. Manasc, L. Oliva, C. Pothel, L. Rochon, S. Sahai, K. Villemure, B.M. Wolanskyj

Pediatrics

Professor and Chairman – K.N. Drummond

Professors – R.P. Bolande, E. Colle, F.C. Fraser, H. Guyda, L. Pinsky, B.I. Pless, C.R. Scriver, G. Watters

Associate Professors – F. Andermann, J.V. Aranda, M. Belmonte, H.F. Brickman, M. Bureau, D.K. Clogg, G. Collins, A. Cowan, C. Dupont, N.R. Eade, J. Fong, P.A. Forbes, J.E. Gibbons, F. Glorieux, H. Goldman, R. Hutcheon, B.S. Kaplan, G. Karpati, K. Metrakos, E. Mills, B. Moroz, M.B. Nogrady, E.W. Outerbridge, A. Papageorgiou, S. Pedvis, D. Rosenblatt, N. Steinmetz, H. Strawczynski, R. Usher, G. Weiss, V.M. Whitehead, M.B. Wise

Assistant Professors – G.A. Ahronheim, R. Barr, C. Branchaud, J.S. Charters, L. Chevalier, J. Chiu, A. Coates, B. Costom, R. deBelle, J-P. De Chadarevian, J.R. Deckelbaum, S.L. Dongier-Montagnac, J.M. Elder, D.L. Esseltine, Z. Fox, T.E. Francoeur, C. Goodyer, P. Goodyer, L. Hechtman, P. Hechtman, M. Hunter, P. Junger, H. Kahne, P. Kaplan, M. Klein, P. Koch, M. Kramer, I. Kunos, G. Lancaster, L. Laporte, C. Larson, J.L. Leblanc, C. Lejtenyi, W. MacDonald, M. Moffatt, J. Neal, S. Pena, M. Preus, E. Reece, B. Rosenblatt, A. Schiffrin, J. Spika, A. Stachewitsch, H. Surchin, G. Tannenbaum, H. Tenenhouse, M.J-J. Vekemans, M. Westwood, F. Wiener, R. Williams, D. Willis, W. Woebler, R. Zinman

Lecturers – M. Babineau, J. Belley, A. Bimbi-Kovacs, S. Blaichman, A. Chan-Yip, M. Cherniak, F. Choy, C. Clow, C. Cummings, E. Delvin, D. Dikranian, P.F. Douyon, A. Feldman, J. Friedman, M. Gillin, V. Goldbloom, A. Gordon, C. Gradinger, H. Gradinger, C. Grandbois, J. Gulyas, R. Haber, Y. Israily, R. Jeanneau, M. Kazemi, F. Key, V. Khediguian, J. Kiteala, A. Krol, P. Lawandi, D. Leduc, F. Lehmann, D. Lorenz, K. Lubkiewicz, H. Lupu, M.E. Malowany, A.J. Markus, R. Martin, D. Munz, P. Neumann, M. Pamukoff, I. Pereira, R. Pincott, J.P. Poirier, S. Quansah, B. Quesnel, D. Rabin, I. Rabin, H. Rich, M. Rochette, E. Rosenberg, T. Rousseau, M. Rozenfeld, A. Schiffrin, P. Senecal, E. Shanin, K. Silver, W. Sissons, M.A. Smith, P. Spier, N. Stein, Y. Talbot, B. Vitullo, C. Wang, F. Wiseman, H.O.R. Young, A. Zelinger

Emeritus Professor – A.S. Ross

Pharmacology and Therapeutics

Professor and Chairman – R.I. Ogilvie

Professors – B.G. Benfey, B. Collier, D. Ecobichon, J. Lowenthal, M. Nickerson, J.B. Richardson, A. Tenenhouse, J.M. Trifaro

Associate Professors – J. Aranda, R. Capek, N.R. Eade, B. Esplin, G. Kunos, P.J. McLeod, R.E. Rangno, B.I. Sasyniuk, D. Varma

Assistant Professors – L. Bayne, B. Hales, M.R. Hamrell, H. Katz, E. Kovacs, J. Kreeft, S. Nattel, A. Padjen, M. Quik, B. Robaire, T-Y. Ti, M. Warner, E. Zorychta

Lecturer – D.S.R. East

Associated Member– D. Cousineau

Physiology

Professor and Chairman – K. Krnjevic *(Joseph Morley Drake Professor of Physiology)*

Professors – R.I. Birks, H.K. Chang, T.M.S. Chang, B.A. Cooper, P. Gold, M. Levy, G. Mandl, G. Melvill Jones *(Hosmer Professor of Applied Physiology)*, J. Milic-Emili, C. Polosa, K. Ruf

Associate Professors – M.W. Cohen, R. Dykes, M.M. Frojmovic, L. Glass, P. Kongshavn, W.S. Lapp, M. Mackey, P. Noble, J.S. Outerbridge, P. Ponka, P. Sekelj, D. Watt, A. Wechsler

Assistant Professors – A.S. Chawla, J. Commissiong, E. Cooper, R. Douglas, M. Glavinovic, J. Henry, R.E. Kearney, N. Lake, J. Mortola, D. Roy, B. Segal, A. Shrier, T. Trippenbach, P. Weldon

Lecturers – E. Chirito, C. Cole, G. Tolis

Associated Members – A. Aguayo, C. Chan, B. Dubrovsky, R. Farookhi, S.O. Freedman, R. Gagnon, H.L. Goldsmith, C.A. Goresky, A. Grassino, M. Katz, G. Kostopoulos, P.T. Macklem, B. Pearson-Murphy, B. Posner, L. Renaud, S. Rossignol, C. Roussos, M.R. Sairam, J.F. Seely, A. Sniderman

Emeritus Professor – F.C. MacIntosh

Psychiatry

Professor and Chairman – M. Dongier

Professors – M.K. Birmingham, B.M. Cormier, F. Ervin, H. Kravitz, E.P. Lester, A.W. MacLeod, A.M. Mann, H.B.M. Murphy, R.H. Prince, T.L. Sourkes, G. Weiss

Associate Professors – M. Amin, J.V. Ananth, F. Azima, A. Barta, P. Beck, C.H. Cahn, G. Chouinard, H. Davanloo, E.G. Debbane, I.S. Disher, S. Dongier-Montagnac, B.O. Dubrovsky, P. Edgell, W.D. Engels, F. Engelsmann, R. Feldman, F. Fenton, A. Ghadirian, B.A. Gibbard, B. Grad, H. Grauer, H.A. Guttman, G. Harnois, L. Hechtman, L.G. Hisey, S. Lal, A. Lee, H.L. Levitan, R.E. Lopez, F.W. Lundell, P.J. Mahoney, D.J. McClure, R.C. Monks, C. Morand, G. Morgens-

tern, H.F. Muller, J. Naiman, N.P. Nair, J.C. Negrete, J. Paris, D. Pivnicki, E.G. Poser, R.A. Ramsay, B.M. Robertson, J.J. Sigal, J.R. Unwin, L. Vacaflor, S.N. Young

Assistant Professors – N.R. Aldous, L. Annable, K. Arvanitakis, S. Barza, J. Beaubien, S. Benaroya, C. Benierakis, S. Bikadoroff, C. Bos, E.J. Brahm, C. Cahill, P. Cheifetz, L. Cumberland, J.F. Davis, L. Demers-Desrosiers, R. Dent, L. Deumie, H.A. Evans, M. Feuerstein, D.E. Frank, S. Gauthier, A. Hausfather, L. Huapaya, B.R. Hunt, B. Jones, T. Kolivakis, M. Kusalic, D. Kussin, M. Lalinec-Michaud, C. Laroche, D.C. Levin, E.D. Levinson, G. Low, G. MacLean, M. Martinez, M. Miller, T. Milet, E. Naltchayan, J. Nestoros, S. Packer, J. Pecknold, G. Peterfy, B. Presser, O. Rios, J. Ruiz-Navarro, P. Senay-Beliveau, F.A. Smith, M.L. Solomon, A.A. Surkis, G.C. Taylor, R. Tempier, G. Turcot, C. Villeneuve, G. Wiviott, P.L. Wood, R. Yassa

Lecturers – A. Achim, E.H. Achong, M.P. Adams, P. Assalian, S. Bachneff, C. Barriga, D.H. Betts, J.P. Bienvenu, J. Boilat, M. Bond, C.N. Boulais, J.M. Bourque, I. Bradley, R.D. Brown, R.E. Bull, T. Callanan, N. Campbell, P.B. Campbell, W.H. Campbell, J. Canfield, L. Carignan, A.J. Carre, P. Cervantes, P. Chan, C. Cohen, H.L. Cohen, M. Cole, H. Cvejic, D.P. Dastoor, M.E. Davis, N. Dienes, Y. Dion, J.P. Ellman, P. Etienne, R. Fontaine, D. Frank, H. Freedman, C. Gaite, J. Garant, J. Gauthier, K. Geagea, C. Golden, P. Goldhamer, D. Goldman, L. Gomez, A. Granich, P. Gregoire, G. Gregoriou, B. Groulx, E. Gutbrodt, J. Guzder, N. Hariton, R. Hirsh, R. Kachanoff, M. Kapuscinska, R. Karmel, R.A. Keller, F. Key, R. Khalid, M. Kiely, D.J. Kraus, F.E. Kristof, R. Lake-Richards, R.S. Lakoff, P. Lamoureux, G. Larochelle, S. Leclair, R.G. Lemieux, N. Levine, H.P. Malmo, D.E. McPherson, C. Medina, J. Meiten, T. Mendis, A.F. Meszaros, B.A. Miller, T. Milroy, E.K. Missala, H. Mohelsky, A.K. Muller, D.P. Nowlis, S.M. Perzow, C.A. Phillips, G. Pierre-Louis, Z. Prelevic, A. Propst, J.R. Pulman, R.M. Richard-Jodoin, P. Roper, A. Ross-Chouinard, A. Roussos, M. Ruiz-Navarro, M. Samy, R.W. Shepherd, A. Sheppard, S.P. Simons, R.M. Smith, N. Sourial, M. Subak, G. Tahta, F.C. Tcheng-Laroche, R. Tirol, H. Triller, J. Vogel, J. Voyer, D. Waiser, J. Waserman, F.V. Weisz, D.J. Wood, D. Zamanzadeh, V. Zicherman, G. Zimmerman, P. Zuardi

Associated Members – T.A. Ban, S.Z. Dudek, G.S. Heseltine, V.A. Kral, C. Morand

Emeritus Professors – R.A. Cleghorn, H.E. Lehmann, E.D. Wittkower

Allan Memorial Institute of Psychiatry

Associate Professor and Director – B.M. Robertson

Radiation Oncology

Associate Professor and Chairman – C.R. Freeman

Professor – M. Cohen

Associate Professors – J.J. Hazel, T.H. Kim, E.B. Podgorsak, T.N. Roman

Assistant Professors – S. Chenery, J.F. Guerra, S.M. Lehnert, W. Mackillop, W. Powlis

Lecturers – C. Graveline, C. Pla, M. Pla

Diagnostic Radiology

Professor and Chairman – M.J. Palayew

Professors – R. Ethier, L. Rosenthall, F. Winsberg

Associate Professors – J.H. Gagnon, B. Hale, R.O. Hill, D. Melançon, M.B. Nogrady, V. Sayegh, L.A. Stein

Assistant Professors – M.E. Azouz, F.M. Boston, F. Bourdon-Conochie, J. Cassoff, J.M. Dumas, P.J. Fitzgerald, M. Goldenberg, R.E. Hanson, M.J. Herba, B.B. Hyams, S. Jequier, N.A. Khan, P. Lander, A. Lisbona, R. Lisbona, A.M. O'Gorman, T. Peters, M.B. Rosenbloom, R. Satin, J. Toth, R.L. Williams, R.E. Wilson

Lecturers – V. Adrenyi, A. Arzoumanian, B. Capusten, J.D. Chan, V. Derbekyan, M. Desaulniers, A.C. French, A. Glay, P.R. Hanson, R.S. Hidvegi, N. Just, R. Kimoff, A.H. Latour, B. Lewandowski, J. Lussier-Lazaroff, M.S. Nathens, M. O'Donovan, D.R. Patton, M. Pinsky, D. Reich, H. Remy, R.L. Slatkoff, R.L. Wee, G. Whiteman

Surgery

Professor and Chairman – L.D. MacLean

Professors – C.J. Chiu, R.L. Cruess, A.R.C. Dobell, F. Glorieux, J. Gordon, F. Guttman, L.G. Hampson, K.J. MacKinnon, J.E. Miller, N.S. Mitchell, B.M.N. Mount, D.S. Mulder, D.R. Murphy, H.S. Scott, H. Shizgal, A.G. Thompson, H.B. Williams

Associate Professors – I. Ajemian, H.E. Beardmore, N.S. Belliveau, P.E. Blundell, C.E. Brooks, H.C. Brown, R.A. Brown, A. Bruce, D. Burke, R.K. Daniel, E. Delvin, R. Dykes, D.M. Edward, M.A. Entin, R.L. Estrada, A.G. Fazekas, R.B. Gledhill, R.G.W. Goodall, R.D. Guttman, E.J. Hinchey, A. Hreno, M. Laplante, C.A. Laurin, G.W. Lehman, R.T. Lewis, D.T.W. Lin, R.C. Long, J.K. MacFarlane, R.G. Margolese, A.H. McArdle, J.L. Meakins, E.D. Monaghan, J.R. Moore, D.D. Morehouse, J.E. Morin, D.D. Munro, A.P.H. McLean, W.L. Ogilvy, J.A. Oliver, H.F. Owen, J.D. Palmer, E. Reid, N.M. Sheiner, H.R. Shibata, I. Shragovitch, H.H. Sigman, S.C. Skoryna, E.J. Tabah, M.P. Thirlwell, E. Wynands

Assistant Professors – C.F.D. Ackman, A. Ahmed, C.M. Allan, P. Belliveau, D. Benetar, N.V. Christou, M.S. Chughtai, A.M. Cloutier, L.B. Conochie, B. Costello, D. Cunningham, A.M. Daniel, J.C. Dickison, W. Fish, J.W. Foote, G.M.

Fried, I. Gordon, P. Gordon, F.A.H. Greenwood, A. Grignon, A. Hadjipavlou, S. Inoue, J. Keyserlingk, W. Krause, I.G. Kulczycki, W.F. Lingard, W.C. Lloyd-Smith, A. Loutfi, G.G. Mackie, D. Mahan, P.J. Marie, B. Marien, W. Mersereau, C.A. Milne, D. Modry, R.V. Moralejo, G.R. Murphy, D. McClure, T.A. O'Farrell, M.I. Park, W. Rennie, P.M. Richardson, H. Rode, J. Rodrigues, M.A. Rosman, P.J. Roughley, D.W. Ruddick, G. Schwartz, I. Shanfield, N. Shepard, W. Smith, A. Spanier, H.D. Stevens, J.F. Symes, Y. Taguchi, J. Trachtenberg, T. Ty, M. van der Rest, M. Wexler, F.M. Wiegand, C.L. Wilson, J.A.S. Wilson

Lecturers – K. Abikar, S. Aronson, L.P. Coughlin, R. Crepeau, G.A. Daniel, H. Daoud, I.J. de Dominico, P. Dubravcik, M. Dupre, A.R. Forse, D.B. Forbes, A. Freedman, N. Halpern, L. Heller, H.F. Helmy, S.A. Jacobson, K.W. Kan, M. Kerner, I. Kuzmarov, A. Legare, S.G. MacIsaac, R.A. MacLeod, P. Madore, J. Miller, J.S. Mort, T. Nearing, J.H. Oliver, D.R. Owen, G.J. Pearl, A.S. Popieraitis, E. Said, T.N. Siller, J.D. Sullivan, C. Sutton, P. Vaktor, W. Watson, D. Wiltshire, S.A. Youssef

Associated Members – C. Chartrand, L. Greenberg

Emeritus Professors – F.N. Gurd, D.R. Webster

2 GENERAL INFORMATION

The one hundred and fiftieth session of the Faculty will open on August 30, 1982.

Separate Announcements are available for the School of Physical and Occupational Therapy and the School of Nursing.

2.1 *BUILDINGS*

McIntyre Medial Sciences Building

This 15 storey building, completed in 1965, contains the administrative offices of the Faculty of Medicine, the Medical Library, the Osler Library of the History of Medicine, the Departments of Biochemistry, Humanities and Social Studies in Medicine, Pharmacology and Therapeutics, Physiology, the McIntyre Animal Centre and a number of special research units (e.g. Anesthesia Research, Aviation Medical Research, Biomedical Engineering, Artificial Cells and Organs Research Centre, and the McGill Cancer Centre.)

Strathcona Anatomy and Dentistry Building

This building, opened in 1911 and one of the architectural splendors of the main campus, houses the Department of Anatomy, the Faculty of Dentistry and the Protein and Polypeptide Laboratory of the Department of Medicine.

Lyman Duff Medical Sciences Building

Opened for use in October 1924, the building is situated on the north-east corner of University Street and Pine Avenue, adjacent to the Montreal Neurological Hospital and the Royal Victoria Hospital. It is occupied by the Departments of Epidemiology and Health, Microbiology and Immunology, and Pathology and the Meakins-Christie Laboratory. The building has extensive facilities for teaching, research and diagnosis.

The Montreal Neurological Institute

The Montreal Neurological Hospital and Institute are housed in an eight-storey building, situated on University property adjacent to the Pathology Building and the Royal Victoria Hospital. The Institute was opened on September 27, 1934 and as the cornerstone states is "Dedicated to relief of sickness and pain and to the study of Neurology". The McConnell Wing was opened in 1953, doubling both the clinical and laboratory space. A nine-storey addition, the Penfield Pavilion, was officially opened in September 1978.

Allan Memorial Institute

In 1943 a large building and site were donated as a basis for the development of an Institute of Psychiatry. The building was reconstructed to permit the establishment of a fifty-bed unit, together with extensive research laboratories, and was officially opened on July 12, 1944.

In 1946 the first day-hospital in the world was opened at the Institute and in 1953 a fifty-bed wing was added.

A research and training building was added by McGill University in 1963, providing one of the most extensive and modern research areas.

Both undergraduate and postgraduate teaching are carried on at the Institute.

Donner Building

The Donner Building for Medical Research, adjacent to the Strathcona Anatomy and Dentistry Building, was completed in September 1948 through the generosity of the late William D. Donner of Philadelphia.

The building houses the Maxwell Lauterman Laboratories for Surgical Research, and also provides facilities for other types of medical and surgical investigation.

Lady Meredith House

Situated at 1110 Pine Avenue West, this building currently houses the Centre for Medical Education, Continuing Medical Education, Area Personnel Officer and Financial Counsellor for the Faculty of Medicine and the Montreal Joint Hospital Institute.

Charles Meredith House

Situated at 1130 Pine Avenue West, this building houses the Mass Spectrometry Unit, the Clinical Section of the McGill Cancer Centre and the McGill Clinical Scholar's Program.

2.2 HOSPITALS

McGill University Teaching Hospitals

There are five McGill University Teaching Hospitals. By agreement and tradition the administration, medical staff and scientific personnel of these institutions are closely integrated with McGill University and form the basis for the clinical departments of the Faculty of Medicine:

Royal Victoria Hospital
Montreal General Hospital
Montreal Children's Hospital
Montreal Neurological Hospital
Sir Mortimer B. Davis - Jewish General Hospital

The Royal Victoria Hospital comprises the following units under one administration: 1. Main Pavilion 2. Medical Pavilion 3. Surgical Pavilion 4. Ross Memorial Pavilion 5. Women's Pavilion 6. Allan Memorial Institute

The total bed complement is 873. Admissions total about 23,000 a year and there are more than 415,000 ambulatory visits annually. The resident and intern staff numbers 236.

The Royal Victoria Hospital was granted its Charter in 1887. The Pathological Institute and the Women's Pavilion of the Royal Victoria Hospital were opened in 1926 and the Allan Memorial Institute (Psychiatric Pavilion) became part of the hospital complex in the 1940's.

The Montreal General Hospital has a bed complement of 822. In a typical year, there are approximately 20,000 admissions and 350,000 consultations in the Emergency and Outpatient Departments. The Resident and Intern staff numbers 275. "The Montreal General" was founded in 1821 and its record in clinical teaching is one of the longest in North America. Students were first received in 1823, in what was the first medical school in Canada. This school agreed to form the Faculty of Medicine in 1829.

The present Hospital was opened in 1955. In addition, a five-storey Research Building was opened on Hospital grounds in late 1973.

The Montreal Children's Hospital located on Tupper Street near the Atwater Metro Station, has 275 beds and, in a typical year, admits 12,000 patients. The Ambulatory Services have approximately 208,000 visits, 88,000 in Emergency and 120,000 in the clinics. The hospital admits newborn infants, children and adolescents with all kinds of medical and surgical problems.

The 58 bed Alexandra Pavilion (formerly the Alexandra Hospital) is now part of The Montreal Children's Hospital and is a centre for diagnostic assessment and treatment programs for retarded children and other programs in developmental medicine.

An active teaching program is maintained for the medical students and for the 115 interns and residents. There are also teaching programs for nursing students and other health professionals. The McGill University-Montreal Children's Hospital Research Institute sponsors research and postgraduate education in disciplines related to problems of childhood.

Sir Mortimer B. Davis - Jewish General Hospital is an acute care hospital of 590 beds to which 18,000 patients are admitted in a typical year. During this same period it provided 276,464 consultations in its emergency and outpatient departments. In addition to extensive research activities that are housed in modern new buildings, the hospital supports a large geographic full-time staff to carry out its teaching responsibilities to 119 interns and residents as well as undergraduate students.

Founded in 1934, the hospital grew from 150 beds to its present size in a series of expansion programs which also saw the establishment of tertiary care programs in neurosciences and vascular surgery. The Lady Davis Institute for Medical Research and the Institute of Community and Family Psychiatry were established in 1968.

Specialty Teaching Hospitals

The following hospitals are affiliated with the McGill University Faculty of Medicine. All the departments and services of these hospitals participate in teaching and research in a single specialty:

Douglas Hospital
Montreal Chest Hospital Centre

The Douglas Hospital was opened in 1881 as a centre for the specialized care of mental illness of short and long term duration. There are facilities for children, adolescents, adults and elderly patients. Services are offered as part of an integrated network of psychiatric services, in cooperation with various departments of psychiatry of general hospitals. There is a comprehensive community psychiatric program offered to residents of Ville Emard, Ville LaSalle, Verdun and Pointe St. Charles. There are approximately 1350 admissions per year to the 980 beds of the hospital; and nearly 50,000 out-patients contacts per year.

The hospital provides clinical instruction and training for residents in psychiatry and in pediatrics, as well as medical students and

students of various paramedical disciplines. Experience can also be obtained in research through the activities of the Douglas Hospital Research Centre.

The Montreal Chest Hospital Centre is a McGill teaching, training and research specialty hospital, for all diseases of the chest, excluding the heart and great vessels. It operates on an out-patient and in-patient basis including a large general chest and tuberculosis clinic. The hospital contains 124 beds and its facilities include operating rooms, general, special and research laboratories, fully equipped pulmonary function laboratories, physiotherapy and all paramedical allied services.

The hospital provides some specialized programs and services which include a home care program, adult cystic fibrosis clinic, anti-smoking program, out-patient rehabilitation program for respiratory insufficiency, centre for phage typing and identification of atypical mycobacteria for the Province of Québec, Revised Comprehensive Tuberculosis Program and special emphasis on the present challenge of lung cancer. It maintains an active research program and residency training program.

Hospitals Affiliated with McGill University

The following hospitals have been approved and have contracted with McGill University for participation in teaching and research in one or more departments and services:

The Queen Elizabeth Hospital of Montreal is a 272 bed acute general hospital located in the western section of Montreal in the community of Notre Dame de Grace with specialty resources organized in the following departments: Medicine, Surgery, Gynecology, Pathology, Anesthesia, Psychiatry and Family Medicine. The Emergency and Out-Patient Department is a very active area serving approximately 100,000 patients per year.

St. Mary's Hospital Centre is an acute care general hospital with 414 adult beds and 65 bassinets. The hospital is recognized as a high risk obstetrical centre, has a progressive Family Medicine Centre and provides a number of highly specialized services, including renal dialysis and oncology, an organized geriatric service and nuclear medicine. Approximately 15,000 patient admissions occur annually, while about 185,000 outpatients are treated in a typical year. There are active intern and residency training programs in the major disciplines.

Lakeshore General Hospital
Reddy Memorial Hospital
Shriner's Hospital For Crippled Children

2.3 CENTRES

Artificial Cells and Organs Research Centre

This centre concentrates on interdisciplinary research using novel approaches in clinically useful artificial cells and organs. The present research emphasis is on artificial cells, artificial kidneys, artificial liver, detoxifiers, enzyme replacement therapy, biotechnology, enzyme immobilization and biomaterials. The members of this centre come from different specialties in McGill: ranging from the basic departments of physiology, chemistry, and biomedical engineering to clinical divisions in the McGill teaching hospitals (Royal Victoria, Montreal General, Montreal Children's and the Douglas Hospital). The Centre Office is in the McIntyre Medical Sciences Building.

Centre for Human Genetics

The Centre for Human Genetics provides a home base for scientists working on genetical problems related to human beings, in University hospitals and research laboratories throughout the city. Administratively responsible to the Faculties of Science, Graduate Studies and Medicine, its purpose is to coordinate teaching in human genetics, develop teaching and consultative programs in areas where genetics is underrepresented, encourage communication and collaboration between genetics units and promote the progress of genetical research and its application to health care. The Central Office is in the Stewart Biology Building.

McGill Cancer Centre

Putting discoveries to work for patients is the main purpose of the McGill Cancer Centre. Created in January 1978, as a result of a bequest from the estate of Sir Mortimer B. Davis, the Centre coordinates the work of researchers, physicians, epidemiologists and teachers throughout McGill University and its teaching hospitals. The clinical division coordinates patient care and sponsors clinical research connected with cancer. The basic science division is a unit of full-time investigators conducting research on molecular and immunological aspects of cancer. The epidemiology division is involved in studies evaluating the cause of cancer and the quality of care given to cancer patients. The Central Office is in the McIntyre Medical Sciences Building.

2.4 LIBRARIES

Medical Library

Life Sciences Area Librarian - FRANCES K. GROEN
Assistant Area Librarian - DAVID S. CRAWFORD.

The Medical Library is located on the second,

third and fourth floors of the McIntyre Medical Sciences Building; the entrance is on the third floor.

The staff of the Public Services Department is available to assist users in locating necessary information through the card catalogues and the numerous abstracting and indexing services to which the library subscribes. The Library offers a full range of data bases searchable by computer. Chief amongst these is the U.S. National Library of Medicine's MEDLINE and its associated data bases such as TOXLINE, CANCERLIT, and CANCERPROJ. Other relevant data bases provided by the Canada Institute of Scientific and Technical Information, and other suppliers are also accessible on-line. These include BIOSIS, PSYCHOLOGICAL ABSTRACTS-ON-LINE, and ERIC.

One of the strengths of the Library is its journal collection. Of the more than 161,000 items held, over 115,000 are bound journal volumes and over 2,000 journal titles are currently received. The collection is particularly outstanding in the area of ophthalmology, due in large measure to gifts from the late Dr. Casey A. Wood. Library collections are developed in all fields of clinical medicine and research. Social aspects of medicine, medical anthropology, and medical sociology are also covered in the Library's buying program.

A Learning Resources Centre is housed on the second floor of the Medical Library. This Centre provides terminals for use in computer assisted instruction as well as video cassettes and slide-tape shows. Audio-visual materials in various formats are regularly purchased for this growing collection.

The Library is open to all who need to use its collections. Borrowing privileges are given to McGill faculty, staff and students. Borrowing privileges are also extended to members of the health professions in the community. An extensive interlibrary loan service is provided to all affiliated and partially affiliated teaching hospitals.

The Library is open from mid-September to mid-June from 8:30 a.m. to midnight Monday to Thursday, from 8:30 a.m. to 10:00 p.m. on Friday, from 10:00 a.m. to 6:00 p.m. on Saturday and 1:00 p.m. to 5:00 pm. on Sunday. During the summer months and at Christmas, the hours are restricted but notification of these changes is posted well in advance.

Osler Library of the History of Medicine

The two-storey wing extending out from the third and fourth floors of the McIntyre Medical Sciences Building contains the Osler Library, devoted to the history of medicine. Besides library offices and stack space, the Library consists of two reading rooms, (the Wellcome Camera, accessible through the main Reading area of the Medical Library on the third floor and the Osler Room beyond the Camera), the W.W. Francis Wing and the H. Rocke Robertson Rare Book Room.

The collection, consisting of about 30,000 volumes in the history of medicine and its sciences and a large quantity of manuscripts, has, as a nucleus, the 8,000 volumes bequeathed to McGill by one of its most famous pupils and teachers, Sir William Osler. It is especially this portion which is rich in 15th, 16th, 17th and 18th century medical books. In addition, books, printed before 1850 have been transferred from the Medical Library to this collection. The rest of the collection has been purchased by the Osler Library itself, especially since 1957, when a generous grant from the Wellcome Trust made active growth of the Library possible. The Library is constantly adding to the collection, especially current work in the history of medicine.

All books in the collection are available for use within the Library and the majority of them are available on loan. Undergraduates and all interested persons may use the Library. For the holdings of the Library, users are urged to consult the card catalogue, and the book catalogue entitled *Bibliotheca Osleriana*, both in the Wellcome Camera. At present, the collection is not completely catalogued anywhere else in the University.

2.5 MEDICAL SOCIETIES

McGill Medical Students' Society

The Society is an association of all registered medical students. Acting through its elected council and various Faculty committees, the Society performs a number of functions:

1) To represent medical students' ideas, concerns and problems to the Faculty of Medicine, the rest of the McGill community, the government, and the public at large.
2) To promote interaction among medical students through both the Québec and Canadian Federations of Medical Students' Societies.
3) To attempt to advance new forms of learning to meet with the desires of the students.
4) To collaborate with the Students' Societies of Nursing, Physical & Occupational Therapy and Dentistry in running the "Annex", the social centre.
5) To regulate all student sporting and social events within the Faculty.
6) To publish the McGill Medical Journal.
7) To generally attempt to provide the resources and personnel to meet student needs and wishes as they arise.

The M.S.S. has members on many faculty committees, including the Curriculum Committee and

the Admissions Committee. Details of all the activities are easily available from the M.S.S. Office and it is hoped that all students will participate in the Society's activities.

L'Association des Etudiants en Médecine est une association de tous les étudiants inscrits en médecine. Représentée par son conseil élu et par les divers comités de la faculté, l'Association accomplit les fonctions suivantes:

1) représente les idées des étudiants, leurs soucis et leurs problèmes à la faculté de médecine, à la communauté McGill en général, au gouvernement et au public en général,

2) facilite la communication des étudiants en médecine par le biais des Fédérations des Associations des étudiants en médecine du Québec et du Canada,

3) essaye de développer de nouveaux cours qui rencontreront les désirs des étudiants,

4) collaborer avec les Associations des étudiants en nursing, en ergothérapie et réadaptation, et en art dentaire dans la direction de "l'Annexe", notre centre social,

5) s'occupe de régler toutes les réunions sportives ou sociales des étudiants en médecine,

6) publie le journal médical de McGill

7) de façon générale, essaye de fournir toutes les ressources et le personnel afin de rencontrer les besoins et les désirs des étudiants qui se font ressentir.

L'Association des étudiants en médecine compte des membres sur plusieurs comités de la faculté y compris le "Curriculum Committee" et le "Admissions Committee". Les détails de toutes nos activités peuvent facilement être obtenus du bureau de l'association et nous souhaitons ardemment que tous les étudiants participent à nos activités.

Osler Society

The Osler Society, named for McGill Medicine's most illustrious graduate, is a gathering of students interested in the history, literature and cultural anthropology of medicine. Sir William himself demonstrated that such an interest, evidenced by the book collection he donated to McGill's Osler Library, is compatible with the highest degree of clinical skill.

The Society's principal activity is an irregularly scheduled series of presentations by students on topics in the medical humanities. Wine, cheese and conversation follow. In the Spring, a lecture by a distinguished guest precedes the annual Osler Banquet, an occasion marked by traditional ceremonies. There is no formal membership, interested persons may attend the functions.

3 SCHOLARSHIPS, BURSARIES, PRIZES, MEDALS AND LOAN FUNDS

For details of scholarships, bursaries and loan funds open to students in all faculties, see the *Undergraduate Scholarships and Awards Announcement.*

Students in the Faculty of Medicine who demonstrate outstanding performance are recognized through the awarding of prizes, medals and University Scholarships. Receipt of an award is permanently recorded on the transcript of each recipient.

In view of the high level of academic performance already achieved by students entering the Faculty of Medicine, scholarships and bursaries are generally awarded by the Faculty on the basis of good standing and financial need. Students requiring financial aid should complete the financial aid forms available from the Student Aid office, 3637 Peel Street, Montreal.

3.1 SCHOLARSHIPS AND BURSARIES

DR. MAUDE E. SEYMOUR ABBOTT SCHOLARSHIPS – from a fund of $10,000, established in 1938 by an anonymous donation in honour of the late Maude E. Seymour Abbott, B.A., M.D., F.R.C.P.(C), LL.D.(McGill), to commemorate her distinguished work in connection with the history of Canadian medicine, the Sir William Osler Pathological Collection and her outstanding research in congenital cardiac disease.

The revenue of this fund provides scholarships awarded by the University to undergraduates in the Faculty of Medicine. Preference is given to women. Awards vary according to need. Further information may be obtained from the Dean's Office, Faculty of Medicine.

J.H.B. ALLAN SCHOLARSHIP – available to undergraduate students in any year.

SIR EDWARD W. BEATTY MEMORIAL SCHOLARSHIPS FOR MEDICAL STUDENTS – income from a bequest of $100,000 from the late Dr. Henry Albert Beatty provides scholarships for undergraduate and graduate students in the Faculty of Medicine. For students who hold or are working towards the McGill M.D., C.M. the award may be held at any approved institution in Canada or abroad. For other qualified students the award must be held at McGill. The holder is expected to devote the year of tenure either to research or to some form of special training excluding the normal training towards the M.D., C.M. and excluding any of the years of residency training required in the Diploma courses.

BELLAM MEMORIAL BURSARIES – from a bequest of $20,000 from the estate of the late C.F. Bellam and awarded on the basis of financial need to students from Stanstead County, Québec.

DR. BEN BENJAMIN MEMORIAL BURSARY – established by his sisters in memory of the late Ben Benjamin, B.A., M.D., C.M., Lecturer in the Department of Pediatrics. Awarded on high academic standing and financial need.

JOSEPH ISRAEL BENNETT BURSARY – a bequest from the late Joseph Israel Bennett provides an annual bursary for a deserving student.

MAX BINZ SCHOLARSHIP – from the bequest of the late Max Binz. $1,000 is set aside annually for scholarships in the Faculty of Medicine.

ELFRIC DREW BROWN BURSARY – established in 1973 by a bequest from the late Elfric D. Brown, M.D., C.M. The income provides bursaries to help deserving students in the Faculty of Medicine.

NAT CHRISTIE SCHOLARSHIPS – established in 1982 by the Nat Christie Foundation, an annual gift of $50,000 provides scholarships for undergraduate medical students valued at a minimum of $1,200 each. Awarded on the basis of academic standing and financial need.

CIBA-GEIGY SCHOLARSHIP – a $1,750 scholarship awarded annually by CIBA-GEIGY Canada Limited to the student whose work in the Summer Research Bursary Program is judged to be the best by the Faculty Scholarships Committee.

BEVERLEY COONER BURSARY – established by the family and friends of the late Beverley Cooner to assist a deserving student. Awarded with the approval of the National Council of Jewish Women on the basis of financial need and academic standing.

BOWMAN CORNING CROWELL AWARD – established in 1979 by a bequest from Frances B. Crowell. To be awarded to an undergraduate medical student engaged in research in Pathology.

JAMES H. CUMMINGS SCHOLARSHIPS – two or more entrance scholarships bequeathed by the late James H. Cummings are awarded at the discretion of the Faculty of Medicine.

ANNIE DIAMOND BURSARIES – established in 1969 for medical students with financial need.

JAMES ECCLES SCHOLARSHIP – established in memory of Mr. James Eccles, a member of the Board of Governors. $500 is awarded for high academic standing to a student entering the final year. Awarded by the University Scholarships Committee.

SAMUEL EIDLOW MEMORIAL BURSARY FUND – established for worthy medical undergraduate students with financial need.

CHANCELLOR FERRIER MEMORIAL BURSARY – established by Mrs. Herbert V. Lacey in memory of her great-grandfather, Senator James Ferrier, Chancellor of McGill from 1884 to 1889. Awarded on the basis of academic standing and financial need, with preference to students from the State of Wyoming.

DR. E.M. FISHER MEMORIAL SCHOLARSHIP – available to any medical undergraduate student.

SIMON AND ROSALIE HALPERN MEMORIAL SCHOLARSHIP – established by the late Dr. Fanny G. Halpern in memory of her parents. The sum of $400 is available to students of the Roman Catholic or Jewish faith who have distinguished academic standing and financial need. The recipient in any one session may re-apply for the following year.

WALTER J. HOARE MEMORIAL SCHOLARSHIP – endowed by the late Dr. Charles W. Hoare, a graduate of McGill University, in memory of his son, Walter J. Hoare, who was killed in World War I. Preference is given to graduates of the Collegiate Institutes of the counties of Essex, Kent and Lambton entering the Faculty of Medicine.

KEITH HUTCHISON MEMORIAL SCHOLARSHIPS – two or more scholarships, in memory of the late Dr. Keith Hutchison. Awarded on the basis of distinguished academic standing and need; tenable in any year. The recipient in any session may re-apply for the following year.

IVES SCHOLARSHIP – established in 1967 by a bequest of the late David Fraser Murray, M.D., C.M., 1924. Awarded on the basis of financial need with preference given to students from Nova Scotia, New Brunswick or Prince Edward Island.

CAMPBELL KEENAN MEMORIAL SCHOLARSHIP – established by Miss Charlotte Mildred Hagar in memory of the late Dr. Campbell B. Keenan. Tenable in the second, third, or fourth year; and awarded on the basis of distinguished academic standing and financial need to an applicant who intends to enter surgical practice. The recipient in any session may re-apply for the following year.

JAMES GRAHAME KER AND FREDERICK K. PETRIE MEMORIAL SCHOLARSHIP – awarded to a student from Eastern Ontario (Counties of Dundas, Stormont, Glengarry, Grenville, Carleton, Russell and Prescott) or from Montreal. Based upon distinguished academic standing and financial need; tenable in second year and may be renewed.

KINCH MEMORIAL BURSARY – established by Miss Dia Joyce in memory of Mr. and Mrs. C.H. Kinch to assist medical undergraduates.

THE FREDERICK PENTON LOFTUS LANE BURSARY OR SCHOLARSHIP FUND – established in 1979 by a bequest from Esther M.E. Lane. The income provides one or more bursaries or scholarships for Canadian medical undergraduates.

DR. CLARKE K. McLEOD MEMORIAL SCHOLARSHIP FUND – established in 1979 by a bequest from Dr. Clarke K. McLeod, M.D., C.M., 1927 to provide scholarships for undergraduate medical students.

JAMES O. MEADOWS AND MARIA MEADOWS AWARDS – income from a bequest of $200,000 from the late Dame Maria Cowan Meadows provides awards for undergraduate and graduate students in the Faculty of Medicine who are engaged in research. Preference is given to candidates working in cancer research but worthy candidates in other areas of medical or surgical research are also considered. Application is made to the Dean of the Faculty of Medicine.

MERCK, SHARP & DOHME OF CANADA LIMITED AWARD – an award established by Merck, Sharp & Dohme of Canada Limited for undergraduates in the Faculty of Medicine to support research in the field of therapeutics.

NEW YORK LIFE INSURANCE COMPANY MEDICAL STUDENT SCHOLARSHIP PROGRAM –one $3,000 entrance award will be made annually to assist qualified students to complete their medical studies. Candidates must be citizens of the United States or Canada; relatives of officers of NYLIC are not eligible. Selection of the recipient is made by the medical school and annual renewal will be based upon satisfactory performance as determined by the medical school. The person to whom the Scholarship is awarded shall be known as a New York Life Insurance Company Medical Scholar.

SAMUEL ROSENFELD BURSARY – established by Mrs. Ida Rosenfeld Letovskyin memory of her late husband, Mr. Samuel Rosenfeld, to support worthy undergraduate medical students.

REUBEN ROSS MEMORIAL AWARD – the income from a bequest of the late Reuben Ross provides an annual award to medical students in financial need.

SOLOMON DAVID SACKS BURSARY – established in 1973 by Mr. and Mrs. Issie Sacks in memory of their son, to assist a deserving medical student in financial need.

DAVID E. AND RONNIE SCHOUELA MEMORIAL SCHOLARSHIP – established by the family in 1980 to assist a first year medical student. Awarded either on the basis of financial need or for participation in the Summer Research Program.

ROSE SCHWARZ – HELEN MARCUS BURSARY – established by the family and friends of the late Rose Schwarz and the late Helen Marcus. To assist a needy, deserving student engaged in summer work in cancer research. Awarded with the approval of the National Council of Jewish Women.

ROBERT SHARWOOD MEMORIAL SCHOLARSHIP – tenable in any year of the undergraduate course in Medicine. It is awarded on the basis of distinguished academic standing and financial need. The recipient in any one session may reapply for the following year.

THE ALLAN JAY SOLOMON AWARD – a fund of $2,000 established in 1977 by family and friends in memory of the late Allan Jay Solomon, M.D., C.M. The income provides an annual award tenable in any year; awarded for distinguished academic standing and financial need.

BRUCE SMITH BURSARY FUND – from a bequest by the late Dr. Bruce Stewart Smith to enable worthy students with financial need to complete medical training at McGill University.

FREDERICK SMITH MEMORIAL SCHOLARSHIP – established in memory of Dr. Frederick Smith, Dean of the Faculty of Medicine, 1947-49. $250 is awarded to a student with high academic standing entering the second year. Awarded by the University Scholarships Committee upon the recommendation of the Faculty of Medicine Scholarships Committee.

ROBERT ROLF STRUTHERS BURSARY – the income from a bequest of the late Robert Rolf Struthers (Medicine 1918) provides support for a needy Canadian student entering third year Medicine.

DR. MILTON C. AND NINA E. WILSON AWARD – established in 1970 by a bequest from the late Dr. Milton C. Wilson. The annual income provides support for undergraduate or postgraduate students in the Faculty of Medicine who are in financial need.

DR. JOSEPH TANZMAN AWARD – a bequest establishing an award in honour of Dr. Joseph Tanzman, M.D., C.M., 1927. Preference is given to a medical student from New Brunswick but if there is no such candidate the award may be given to any deserving student in the Faculty of Science. Awarded by the Scholarships Committee of the Faculty of Medicine or the Faculty of Science.

UPJOHN ACHIEVEMENT AWARD – a $300 prize and a plaque to be awarded to the student whose paper given at the Annual Student Research Day is judged by a Faculty panel to be the best in terms of scientific merit. The name of the recipient will be inscribed on a plaque which will be held by the Faculty.

UNIVERSITY SCHOLARSHIPS. – See the *General Announcement*

3.2 PRIZES

MR. AND MRS. J.A. BESNER PRIZE – a prize of approximately $475 is awarded to the student obtaining the highest aggregate standing in Phase II of the medical undergraduate course.

H.S. BIRKETT MEMORIAL PRIZE IN OTOLARYNGOLOGY – established by Miss Winifred Birkett in memory of her father, the late Dr. H.S. Birkett, formerly Professor of Otolaryngology. A prize of $375 is given to the student who has shown outstanding performance in Otolaryngology. In addition, the winner is presented with a specially bound volume containing a biographical sketch of Dr. Birkett, a photograph and an address by Dr. Birkett on the History of Medicine in the Province of Québec.

JAMES Q. BLISS ANNUAL BOOK AWARD – awarded to the student in the First Year who obtains the highest standing in Physiology.

JOSEPH MORLEY DRAKE PRIZE – founded by the late Joseph Morley Drake, M.D., a prize of $300 is awarded to the most outstanding student in Pathology.

EPIDEMIOLOGY BOOK PRIZE – awarded to the student who obtains the highest standing in Epidemiology and Health in Phase I of the medical curriculum.

ROBERT FORSYTH PRIZE – bequeathed by the late Miss Jeanie Forsyth, a prize of $200 is awarded annually to the graduating student who has shown particular ability in all branches of Surgery.

CHARLES E. FROSST MEDICAL PRIZE AND BRONZE MEDAL – a bronze medal and prize of $500 are awarded annually to the student who has shown most promise in the field of Pharmacology.

CLAUDE GIROUD PRIZE IN PEDIATRICS – established in 1981 in memory of Dr. Claude Giroud, Physician-Endocrinologist of The Montreal Children's Hospital and McGill University. $175 awarded on the basis of scientific merit to the author of a paper suitable for publication in a pediatric journal. The prize is open to medical students and to residents and fellows in pediatric training. The name of the recipient will be inscribed on a plaque located in the Claude Giroud Memorial Library. Awarded by the Faculty of Medicine.

ELIZABETH ANN MUNRO GORDON MEDAL AND PRIZE –established in memory of Dr. Elizabeth Ann Gordon. Awarded to the member of the graduating class, with preference to a woman student, who in the opinion of the Faculty presents in every respect the highest qualifications to practise the profession.

HARRY S. GROSS MEMORIAL PRIZE – bequeathed by the late Mrs. Esther B. Gross in memory of her late husband, Harry S. Gross, D.D.S., 1913, M.D., C.M., 1921, a prize of $125 is awarded to the student in Phase II with the highest standing in Surgery.

JOSEPH HILS PRIZE – founded by the late Dr. Joseph Hils, of Woonsocket, R.I., a prize of $175 is awarded to the student obtaining the highest standing in Pharmacology in Phase IB.

CAMPBELL HOWARD PRIZE IN CLINICAL MEDICINE – founded by Mrs. Campbell Howard in memory of the late Dr. Campbell P. Howard, Professor of Medicine at McGill, a prize of $100 is awarded to the student who has shown the most consistent excellence in written case reports in Phase II Clinical Medicine.

F. SLATER JACKSON PRIZE – founded by Mr. and Mrs. H.F. Jackson in memory of their son, the late F. Slater Jackson, M.D., a prize of $175 is awarded to the student with the highest standing in Histology.

CAMPBELL KEENAN MEMORIAL PRIZE IN CLINICAL SURGERY – established by Miss Charlotte Mildred Hagar in memory of the late Dr. Campbell B. Keenan a prize of $100 is awarded to the graduating student who has shown the highest proficiency in Clinical Surgery. The winner of the Robert Forsyth Prize in Surgery is ineligible.

CHESTER MACNAGHTEN PRIZES – an essay prize open to students in all faculties. Information may be obtained from the Scholarships Office, Registrar's Office.

FRANCIS MCNAUGHTON PRIZE – established in 1980, a prize of $200 and a book are awarded to the student with the highest standing in the Central Nervous System course.

MONTREAL CHILDREN'S HOSPITAL CUSHING MEMORIAL PRIZE – a prize of $100 is awarded to the student with the highest standing in Pediatrics.

PRIZE IN MEDICAL ETHICS AND JURISPRUDENCE – established in 1953, a prize of $225 is awarded to the fourth year medical student who writes the best essay in fulfillment of the requirements of the course in Medical Ethics and Jurisprudence.

PSYCHIATRY PRIZE – a prize of $200 is awarded on the recommendation of the Department of Psychiatry to the student who has shown the most promise in this field.

SAMUEL ROSENFELD PRIZE – a prize of $125 is awarded to the student with the highest standing in Medical Microbiology.

MONA BRONFMAN SCHECKMAN PRIZE – a prize of $275 is awarded to the student with the highest academic standing in Psychiatry.

E. DAVID SHERMAN AWARD IN GERIATRIC MEDICINE – a prize of $300 is awarded to the most outstanding student in the field of clinical geriatric medicine.

ALEXANDER D. STEWART PRIZE – founded by the late W. Grant Stewart (Arts 1885, Medicine, 1888) in memory of his brother the late Alexander D. Stewart (Medicine, 1888). A prize of $250 is awarded to the member of the graduating class who, in the opinion of the Faculty, presents in every respect the highest qualifications to practise the profession.

MARY AND LOUIS STREICHER PRIZE – established in 1980, a prize of $150 is awarded to the student with the highest standing in Biochemistry in Phase I of the medical curriculum.

J. FRANCIS WILLIAMS PRIZE IN MEDICINE AND CLINICAL MEDICINE – founded by the late J. Francis Williams, M.D., a prize of $500 is awarded to the student obtaining the highest standing in Medicine in Phase III of the medical curriculum.

3.3 MEDALS

HOLMES GOLD MEDAL – founded by the Medical Faculty in 1865, in memory of the late Andrew Holmes, M.D., LL.D., sometime Dean of the Faculty. It is awarded to the student graduating with the highest aggregate standing in the entire medical curriculum.

SUTHERLAND GOLD MEDAL – founded in 1878 by the late Mrs. Sutherland in memory of her husband, William Sutherland, M.D., formerly Professor of Chemistry in the Faculty. It is awarded to the student obtaining the highest aggregate standing in Phase I of the medical undergraduate curriculum.

WOOD GOLD MEDAL – endowed by Casey A. Wood, M.D., LL.D. in memory of his grandfather, Thomas Smith Wood. It is awarded for the most outstanding clinical performance achieved by a student in Phase III. The winner of the Holmes Medal is not eligible.

3.4 LOAN FUNDS

MAUDE ABBOTT MEMORIAL LOAN FUND – established by the Federation of Medical Women of Canada. Any woman medical student, first year intern or graduate student may apply to the Secretariat, Federation of Medical Women of Canada, Box 8244, Ottawa, Ontario K1G 3H7.

BORIGHT LOAN FUND – established in 1963 by a bequest from the late George H. Boright to provide loans to deserving medical students.*

BOSWELL JAMES LOAN FUND – established in 1943 by Dr. A. Boswell James to provide loans for undergraduates and graduates.*

DAVID M. CALDWELL STUDENT LOAN FUND – established in 1973 by a bequest from the late David M. Caldwell M.D. 1919, to assist students in the Faculty of Medicine, with preference to American students.*

ALEC AND SYLVIA DOLLIN LOAN FUND – established in 1965 by Mr. Alec Dollin to provide loans for medical students.*

KELLOGG LOAN FUND – established by the Kellogg Foundation. It provides loans up to a maximum of the tuition fees in any one year. Available to students in good standing and with financial need. Application and regulations are as for other loan funds of the University.*

LACEY LOAN FUND – established in 1962 by a donation from Mrs. Herbert Van Devanter Lacey, Cheyenne, Wyoming, primarily to aid medical students from the State of Wyoming. It may however be extended to others in accordance with the following priorities: medical students from the State of Wyoming; dental students from the State of Wyoming; medical students from other states of the U.S.A.; medical students from other countries. Loans are not to exceed $700 per year.

GEORGE W. MERCK MEMORIAL LOAN FUND – established in 1960 by the Merck Company Foundation to provide loans for undergraduate medical students, interns and residents.

GERTRUDE MUDGE MEMORIAL STUDENT AID FUND – established in 1958 by donations from students, graduates, and staff in memory of the late Gertrude Mudge, for many years Assistant Secretary of the Faculty of Medicine. Loans shall not exceed the fees for the year.*

WESTON FAY VOLBERG JR. MEMORIAL LOAN FUND – established in 1956 by classmates of the late Weston Fay Volberg, Jr., M.D., C.M. 1953. It is available to medical students.*

*Apply to Student Aid Office.

4 CURRICULA, COURSES OF STUDY AND PROGRAMS

4.1 PROGRAMS IN MEDICINE

Application for Admission

Admissions Telephone Number: (514) 392-4232

Application for admission to the Faculty of Medicine must be made on the special application form which can be obtained from the Office of the Associate Dean (Admissions), Faculty of Medicine, Room 609, McIntyre Medical Sciences Building. Applications for September 1983 will be available as of August 1982.

All applicants to the Four Year, Five Year and Advanced Standing Programs will be asked to complete a full application. The deadlines for receipt of applications are December 1, 1982 for applicants who are non-Québec residents, and March 1, 1983 for Québec residents. These deadlines also apply for the receipt of all supporting documents which must include transcripts, M.C.A.T. scores (four year program only), autobiographical letter and letters of reference. Students currently attending McGill whose place of home residence is outside Québec are considered non-Québec residents. Conversely, Québec residents attending universities outside the province are still considered Québec residents. The application must be accompanied by a non-refundable fee of fifteen dollars ($15.00 in Canadian funds) in the form of a cheque or money order payable to McGill University. Applicants currently registered at McGill University are not required to pay the $15.00 fee.

ONLY OFFICIAL TRANSCRIPTS WILL BE ACCEPTED BY THIS OFFICE. ALL MATERIALS SUBMITTED TO THIS FACULTY BECOME THE PROPERTY OF THIS OFFICE AND CANNOT BE RETURNED.

Although the great majority of the entering class is below the age of 27, older applicants will be considered.

There is a total of 160 students in the first-year class.

Accepted students for the 1981 entering class had the following credentials: mean G.P.A. (Based on a 4 point scale) 3.7, mean M.C.A.T. scores: Biology 9.2, Chemistry 9.9, Physics 9.6, Science Problems 9.6, Skills Analysis Reading 9.0, Skills Analysis Quantitative 9.3.

REQUIREMENTS FOR ENTRANCE

Four-Year Program in Medicine

Applicants must be in the final year of a course of study leading to the Bachelor's Degree at a recognized college or university. All successful candidates must be in receipt of the Bachelor's Degree prior to registration in the first-year of the medical curriculum.

This Faculty does not admit part-time students.

Scientific Requirements:

One full year course in each of the following:

General Chemistry (with laboratory work),
Organic Chemistry (with laboratory work),
Physics (with laboratory work),
Biology (including studies of biology at the cell and molecular level).

In addition, a full year course in Physiology (human and/or mammalian) with laboratory work is recommended.

Cultural Requirements: In addition to the scientific requirements, applicants are encouraged to have an adequate preparation in English literature, composition and mathematics.

In selecting courses, additional to the specific requirements listed above, intending medical students should plan a premedical program which ensures a broad education and intellectual training rather than a purely factual curriculum. Students are therefore advised to select a major field which appeals to them; this major field may be selected from the natural or social sciences, or the humanities. Certain subjects, such as psychology, sociology, genetics, anthropology, mathematics, and languages, have been found valuable in medical study and may be included as electives if the curriculum in the major field permits.

Medical College Admission Test: ALL APPLICANTS TO THE FOUR-YEAR MEDICAL PROGRAM ARE REQUIRED TO TAKE THE NEW MEDICAL COLLEGE ADMISSION TEST NO LATER THAN DECEMBER 1, 1982. This test is conducted by the American College Testing Program (P.O. Box 414, Iowa City, Iowa 52240) at various centres in the spring and fall of each year. Applicants can obtain the registration material either from the Office of the Associate Dean in the Faculty of Medicine as of February 1982 or directly from the Iowa City address given above. The 1982 MCAT test dates are

April 24, 1982 and September 11, 1982. For those who plan to write the test in April 1982, registration deadlines are March 19, 1982 for foreign test centres, and March 26, 1982 for U.S., Canada and Puerto Rico test centres. For those who plan to write the test in September 1982, registration deadlines are August 6, 1982 for foreign test centres and August 13, 1982 for test centres in the U.S., Canada, and Puerto Rico. Candidates are warned not to mail too close to the postmark deadline since past experience has shown that packets are sometimes postmarked a day or two after they have been put in a mail box.
NO LATE APPLICATIONS WILL BE ACCEPTED.

It should be noted that the MCAT includes tests to measure:

1. Science Knowledge (Biology, Chemistry and Physics)
2. Science Problems (Biology, Chemistry and Physics)
3. Skills Analysis (Reading)
4. Skills Analysis (Quantitative)

It is realized that English is not the first language of many applicants to the Faculty and this fact will be taken into account in assessing the results of this test.

Five-Year Program in Medicine

Canadian citizens and permanent residents of Canada living in the Province of Québec, who are currently completing the two-year program in the Health Sciences or Pure and Applied Sciences in the Québec Colleges of General and Professional Education (CEGEP), are eligible to apply for the Five-year program. CEGEP students in these programs fulfill requirements by completing: Mathematics 103, 203; Physics 101, 201, 301; Biology 301, 401; Chemistry 101, 201, 202. Although it is not a pre-requisite, we recommend Chemistry 302. Students not having a second semester course in Organic Chemistry will be required to complete this during their first year (Med-P). Individuals who have attended other technical schools or university programs before attending CEGEP are not eligible to apply for the five-year program; students who have taken collegial or pre-medical programs elsewhere are also ineligible to apply. Students who complete their CEGEP studies and register as undergraduates in a non-medical program must complete the requirements for the four-year program. (see page 17). Students in the five-year program will be registered in the Faculty of Science for the first year (Med-P year). Such applicants will complete the scientific entrance requirements for the four-year medical curriculum during the Med-P year. Provided that a satisfactory academic standing is maintained, the student will proceed into the four-year medical curriculum.

Second Choice Degree Programs: It should be noted that students in the Province of Québec may apply to the Faculty of Medicine at two stages of their studies: (1) in their second year at CEGEP (for the five year medical program), and (2) in the final year of a university program leading to a Bachelor's degree (for the four year medical program). As many applications for the five year program cannot be accepted, students may plan to apply again to the Faculty of Medicine after completing a degree. Any student intending to apply to the Faculty of Medicine should give careful consideration to the second choice of university program to be filled on the application form. The Admissions Committees have chosen students applying from the Faculties of Agriculture, Arts, Dentistry, Education, Engineering, Law, Management, Science and the School of Physical and Occupational Therapy. Therefore, when a second choice of university program is being made, it is advisable to choose a field of study that appeals to the student and provides a satisfactory basis for a future career. The selection of an alternate field of study should take into consideration the cultural requirements outlined for the four year program in Medicine (see page 17). **APPLICANTS TO THE FIVE YEAR MEDICAL PROGRAM ARE NOT REQUIRED TO WRITE THE MEDICAL COLLEGE ADMISSION TEST.**

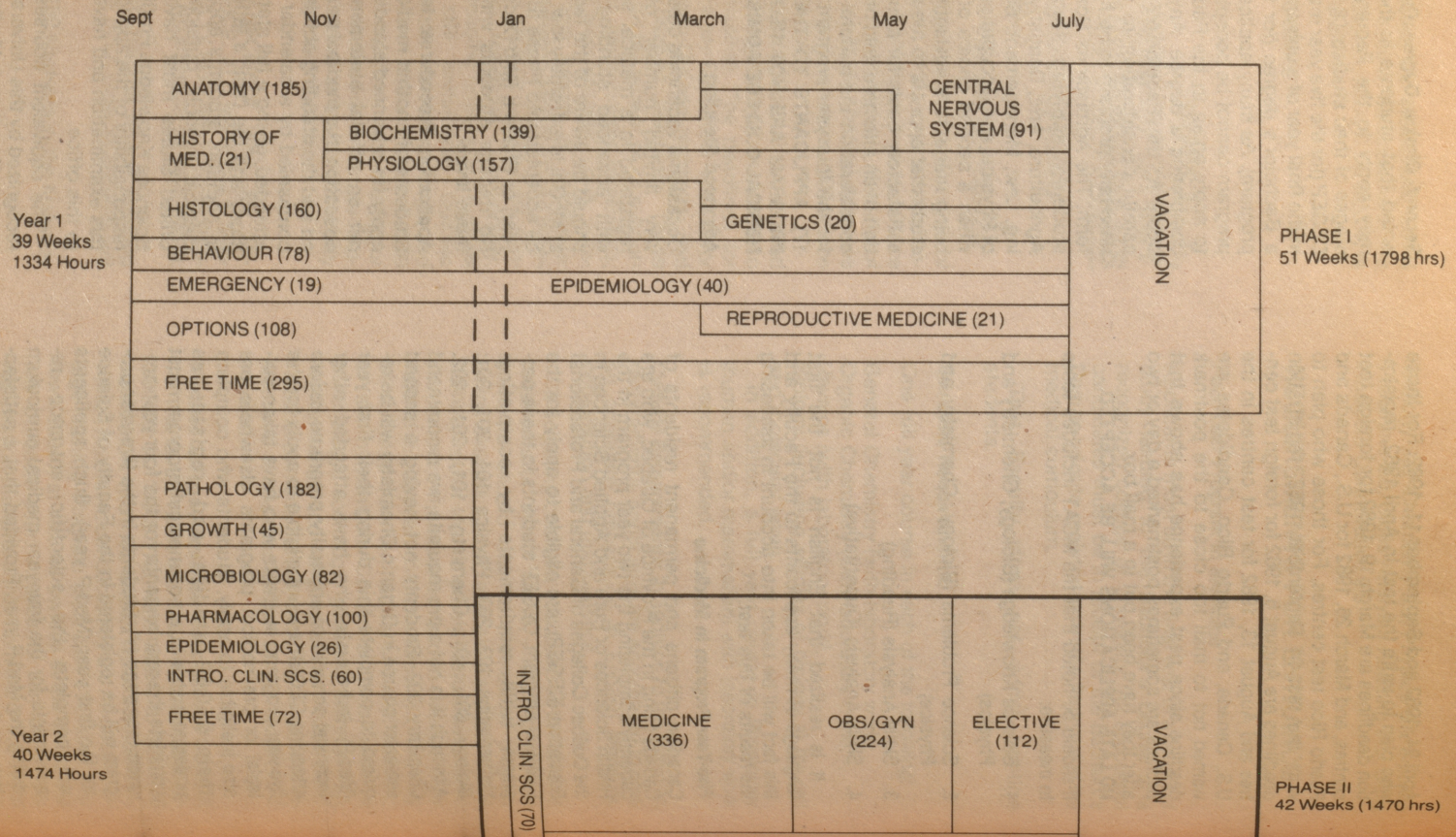
Advanced Standing

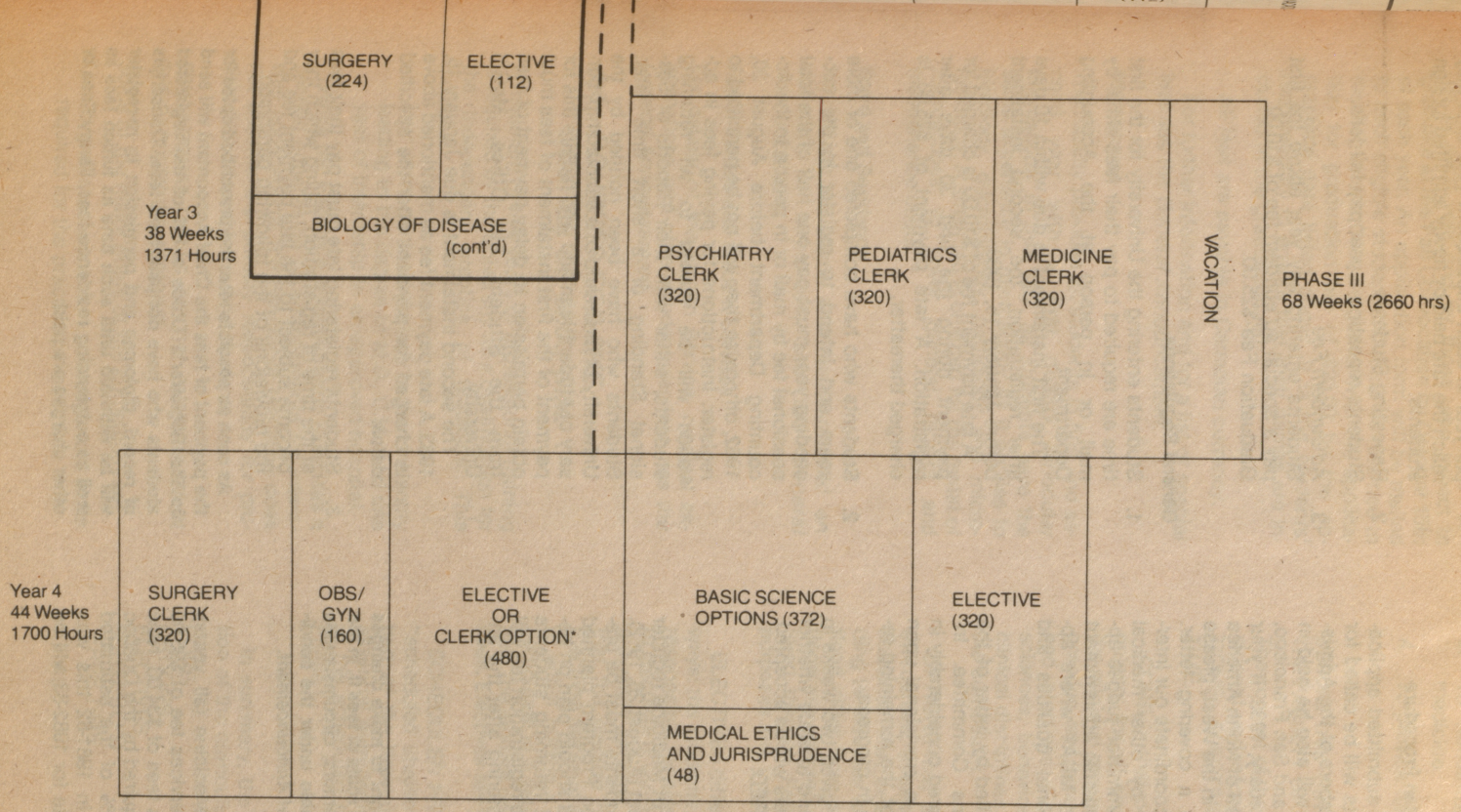
Occasional vacancies created by attrition allow a very limited number of students, currently registered in a medical school, to be accepted with advanced standing. Potential applicants should be aware of the fact that the attrition rate at McGill is extremely low. Transfer students may be accepted into Phase IB (September of second year) or Phase II (Mid-December of second year). No transfer students will be accepted beyond these levels.

Application Procedures for Advanced Standing: Students of another medical school who wish to apply for advanced standing are required to submit an official statement of their preliminary education, the medical program they have followed and the standing obtained. This should be accompanied by a calendar of the medical school attended, giving a full statement of the course of study and the Dean's letter of recommendation. In addition, students applying for transfer from medical schools outside of Canada and the United States must have passed the Medical Sciences Knowledge Profile examination. It is the responsibility of the applicant to arrange to write this examination and have the results forwarded to this office.

The equivalent courses of study in schools recognized by this University shall be determined by the Faculty of Medicine. Acceptance of a course of study as equivalent may not include the examination in that subject held by the recogniz-

McGILL FACULTY OF MEDICINE CURRICULUM





Hours calculated on basis of 35 hours/week in PHASES I & II and in Basic Science Options of Phase III; 40 hours/week in PHASE III Clerkships and Electives. Hours and weeks do not include vacations and holidays.

*Students must select either 160 hours of clerk options and 320 hours of electives or vice versa.

(revised Nov. '80)

ed school and the student may be required to pass such examinations, individual or comprehensive, as may be determined by this Faculty.

Applicant Review and Notification Procedure

After a careful review of the submitted application material, some applicants will be called for interviews at McGill with members of the Admissions Committee. Interviews will also be held in Vancouver, British Columbia and San Francisco, California, in January or February, 1983. If your residence is in the western half of North America and you prefer your interview in the West, please indicate your preference in a covering letter. Every effort will be made to coordinate our interviews with those arranged by other medical schools. The Admissions Committee judges applicants on the basis of academic achievement (entire academic record and MCAT where applicable), as well as personal qualities and attitudes.

All applicants will be notified by letter of the decision of the Admissions Committee. Inasmuch as admission is offered considerably in advance of matriculation, it is provisional upon the successful completion of the remaining requirements for the programs in progress.

Successful applicants are given two weeks in which to reply to the letter and to state whether the offer of a place in the class will be accepted. NO DEPOSIT FEE IS REQUIRED.

4.2 REGISTRATION

New students in the Faculty of Medicine register on the last Thursday of August (August 26, 1982). All first year and transfer students must be present. There is an Orientation Program planned after registration so students should plan on being here the entire day. All returning students register in advance and a late registration fee will be assessed for those registering after the announced deadlines.

4.3 FEES

The University reserves the right to make changes without notice in its published scale of fees if, in the opinion of the Board of Governors, circumstances so require. Fees are refundable under the conditions described in the *General Announcement*.

University Fees

1. Four-year program in Medicine (all years): $719.00 plus Student Services fee of $95.00 and Students' Societies fees of $34.00. New foreign students are required by the Québec government to pay 60% of the estimated cost of their studies. In 1981-82 this was $4,128 per year. The rate for 1982-83 will be advanced as soon as it is determined by the government. Returning foreign students will pay $3,500 per year and an additional $1,000 per year in each subsequent year until they reach the rate paid by newly admitted foreign students.
2. Repeating Students
   Students repeating a year pay full fees.
3. *Ad eundem* Fee
   Students entering any year above the first pay a special *ad eundem* fee of $10.00
   Graduation Fee–$25.00.

General Regulations

1. Students entering the University for the first time are required to pay their fees either by mail or in person at the Accounting Department.
   The first instalment is due within 10 days after registration, the second instalment before January 15, 1983.
   A late payment fee of $10.00 is charged for payment during the first 30 days after registration. A late payment of $25.00 is charged thereafter.
2. Students who have completed one or more years and intend to register in the succeeding year must pay one half of the total sessional fee by mail or in person to the Accounting Department before August 20, 1982, otherwise they will not be permitted to register. Instructions for paying fees in advance will be mailed to all returning students, either with their Reports of Sessional Standing or a short time later. Students who have been notified by the University of the award of a scholarship, bursary or student loan and who require this for payment of the first instalment of fees must obtain permission to delay payment of fees from the Student Aid Office, McGill University.
   The second instalment is due January 15, 1983. A late payment fee as mentioned above is charged for payment after the specified dates.
3. Students registering late must pay their fees at the time of registration, failing which they become subject to the late payment fee and the provisions of the following paragraph:

As soon as possible after the prescribed dates for the payment of fees the Chief Accountant will send to the Registrar's Office a list of the registered students who have not paid their fees. Transcripts of record, diplomas and permission to re-register will be withheld until such time as tuition fees as well as outstanding residence fees, library fines or other charges are paid.

Application for Graduation Fee

Applications by students who expect to graduate at the Spring Convocation must be filed by April 1st of each year and by those who expect to graduate at the Fall Convocation by October 15th of each year. An application form will be mailed to each eligible student and must be returned to the Registrar's Office together with the application for graduation fee of $25.00 by the appropriate date listed above. It is the students' responsibility to ensure that their names are included in the graduation list.

All fees are payable in Canadian currency.

For further information and for a list of special fees see the *General Announcement.*

Microscopes

The Faculty provides all students in first and second year with a first quality binocular microscope. In this way, all students have the same experience in microscopy as it applies to histology, microbiology, pathology and microhistology. A small fee is charged for the rental of microscopes to cover general repairs and maintenance costs.

Board and Residence

For details of board and residence and an estimate of expenses, see the *General Announcement.*

Health Service and Student Services

For details of the Health Service, medical examinations and other student services see the *General Announcement.*

4.4 COURSES FOR THE DEGREE OF M.D., C.M.

A minimum of five years of professional training is required by the University as a qualification for the independent practice of Medicine. This includes:

four years of medical study in the University leading to the degree of M.D., C.M.; and one year of internship in an approved hospital.

While the Faculty's administration exercises a general supervision of arrangements for internship applications, the Faculty of Medicine does not assume the primary responsibility for providing an internship for any student.

EDUCATIONAL GOALS OF THE CURRICULUM IN THE FACULTY OF MEDICINE

Some of the major goals of the curriculum are:

1. To give students core knowledge and skills required for the practice of medicine.
2. To enable the student to use basic sciences in clinical medicine.
3. To humanize the students' approach to medicine.
4. To provide flexibility of content.

DESCRIPTIVE OUTLINE OF THE CURRICULUM IN THE FACULTY OF MEDICINE

The content of the McGill curriculum may be considered under four major headings – CORE, OPTIONS, ELECTIVES, and SCHEDULED FREE TIME.

CORE is that portion of the curriculum compulsory for all students. Core content provides the minimal preparation of a student for medical practice, and it must be supplemented by options and electives. Core includes basic biological sciences, behavioural and social sciences and clinical disciplines. It is taught in all four years of the curriculum.

OPTIONS may be thought of as a defined list of courses, determined by Faculty, from which students must select a specified number according to the rules and regulations of Faculty. Options differ from electives in two respects. Options are courses specifically proposed and offered through Faculty for specific educational purposes and the number of options is limited.

ELECTIVES differ from options in the following ways: the students, not the Faculty, are primarily responsible for selecting the courses; the choice of electives is very large and may be taken in non-university settings. The only major restriction is that the elective must be related to medicine. Electives are seen as an opportunity for a student to either pursue a major interest in depth or to participate in a variety of experiences that might help the student decide on ultimate career objectives. Electives are taken during Phases II and III.

SCHEDULED FREE TIME is synonymous with "scheduled student learning time". It is a vital part of the timetable as "learning time" is an essential complement to "teaching time". Most of the scheduled free time at McGill occurs in Phase I.

In summary, the time allotment for each portion of the curriculum is as follows:

CORE	92 weeks	57%
OPTIONS	35 weeks	22%
ELECTIVES	24 weeks	15%
SCHEDULED FREE TIME	10 weeks	6%
TOTAL	161 weeks	100%

PHASES

The four years of the curriculum are divided into three phases:

PHASE I	Beginning of Year 1 to mid December of Year 2 (51 weeks)
PHASE II	Beginning mid December of Year 2 to end of December of Year 3 (42 weeks)
PHASE III	Beginning of January of Year 3 to end of May of Year 4 (68 weeks)

PHASE I

Phase I comprises all of first year and the first 16 weeks of second year. It is devoted largely to instruction in the Basic Biological Sciences. Normal Biology is the main theme of the first year (Anatomy and Embryology, Histology, Physiology, Biochemistry, and Central Nervous System). Behavioural Science and Epidemiology are the core non-biological sciences given in Phase I. In addition, short courses in Emergency Medicine, Human Genetics, Reproductive Medicine and the History of Medicine are offered in the first year.

As indicated in the timetable, first year students are required to take 108 hours of optional courses. Students may take credit courses from any of the faculties at McGill University. First year options may also be chosen from courses offered for credit by any of the universities in Montreal. Every student must take six option credits in the first year.

Abnormal Biology is introduced in the first 16 weeks of second year (Pathology, Microbiology and Pharmacology). A course in Growth and Development is also given during this period.

PHASE II

Phase II consists of three main parts:

1. The bulk of the Introduction to Clinical Sciences Course.
2. The pre-clerkship clinical rotations in Medicine (12 weeks), Surgery (8 weeks), Obstetrics and Gynecology (8 weeks).
3. The Biology of Disease Course, predominantly a course in Pathophysiology, is given concurrently (two half days per week) with the clinical rotations.

In addition, Phase II contains an 8-week elective block.

PHASE III

Phase III begins in January of the third year and concludes at the end of fourth year. The 68 weeks of the phase are divided as follows:

Clerkship	20 weeks	36 weeks
Clerkship Options		4-8 weeks
Electives		12-16 weeks
Basic Science Options		12 weeks

The clinical clerk occupies a well-defined position as a regular member of a clinical teaching unit, with increased responsibility for patient care. The clerkship is designed to permit the student to consolidate the clinical skills acquired in Phase I and II and to assume direct responsibility for patient care.

The clinical clerkship is structured to satisfy the demands of most licensing bodies. Students may, if they desire, enter directly into straight internships as the first year of their specialty training.

4.5 CURRICULUM REVIEW

The Faculty realizes the need for constant review of the medical curriculum that is necessitated by:

a) Rapid advances in scientific knowledge.
b) Changes in the role of the medical school in the community and changes in the delivery of health care.
c) Application of new principles of educational science to medical education.

Therefore a permanent student-faculty Curriculum Committee is charged with the task of reviewing the curriculum and recommending any modifications of time allocation or content to Faculty.

4.6 EVALUATION SYSTEM

The Evaluation System is under constant review by the Faculty Evaluation Committee. Any of the rules and regulations published here or in previous calendars must not be considered inviolate; the Faculty reserves the right to change any of these rules and regulations at any time, although in general such changes will not come into effect in the middle of a session. Faculty policy is formalized in a Policy Booklet available in the Dean's Office, Faculty of Medicine.

Students are reminded that cheating in an examination, including examinations administered by the Faculty on behalf of external agencies and unethical conduct on clinical rotations is considered a serious offence which could lead to suspension or expulsion from the University.

For the purposes of evaluation the four-year curriculum is broken down into the following sessions. At the end of each session the Student Promotions Committee meets to determine whether or not a student may proceed to the next session.

Evaluation Session I
The beginning of Year 1 until the end of Year 1

Evaluation Session II
The beginning of Year 2 until the end of Phase IB

Evaluation Session III
The beginning of Phase II until the end of Phase II

Evaluation Session IV
The beginning of Phase III until the end of Phase III

Evaluation Procedures: In Evaluation Sessions I and II a student is not allowed supplemental examinations in more than two major courses and one minor course per Evaluation Session. In Evaluation Sessions III and IV a student is not allowed more than two remedial rotations in major courses per Evaluation Session. A student who fails two or more major courses in Evaluation Sessions III and IV, on more than two major courses and one minor course in Evaluation Sessions I and II will be required to either repeat the session or retire from the Faculty, as decided by the Faculty Committee on Student Promotions. The entire academic record of a student who fails one or two major examinations will be automatically reviewed by the Promotions Committee which may choose from three options: (a) permit supplemental examination(s), (b) require repetition of the entire Phase or, (c) under circumstances of professional incompetence require withdrawal from the Faculty. A failure in the supplemental examination or remedial rotation of a major course will require the student to repeat the Evaluation Session. Failure in a major subject during a repeat Evaluation Session will result in automatic retirement from the Faculty. The evaluation result of remedial clinical rotations will be recorded in the official transcripts as supplemental examinations, and will be considered as such for purposes of promotion.

No evaluation, examination mark, etc., shall be considered final until passed by the Promotions Committee.

The Faculty reserves the right to require the withdrawal of any student at any time, who is considered incompetent by the Promotions Committee.

Evaluation System: The Faculty operates on a pass/fail system. This in effect means that students' standings, class rank, and grades in courses and rotations are not available to any external agency such as hospitals, universities or licensing bodies. Official student transcripts from the University contain the designations "Satisfactory" or "Unsatisfactory" to represent this evaluation system. For purposes of internal use students' numerical grades are used only in the calculations required for awards, prizes, academic bursaries and faculty medals.

Major Courses: Formal student evaluation by examination and by other means (term papers, tutorial assessments of performance in small groups or on clinical services) will be conducted in the following courses: Anatomy (Embryology), Histology, Physiology, Biochemistry, Central Nervous System, Pathology, Microbiology, Pharmacology, Epidemiology, Biology of Disease, Phase II Surgery, Phase II Medicine, Phase II Obstetrics and Gynecology, Phase III Pediatrics, Phase III Psychiatry, Phase III Surgery, Phase III Medicine, Phase III Obstetrics and Gynecology, all Phase III Clerk Options and Fourth Year Basic Science Options.

Minor Courses: Evidence of satisfactory completion before being considered for promotion to the next phase is required for the following courses: Behaviour, History of Medicine, Emergency Medicine, Human Genetics, Reproductive Medicine, Introduction to Clinical Sciences, Growth, First Year Options and all Electives.

4.7 REQUIREMENTS FOR THE DEGREE OF M.D., C.M.

1) Every candidate for the degree of Doctor of Medicine and Master of Surgery in this University must be at least twenty years of age and of good moral character.

2) Candidates must have fulfilled all the requirements for entrance to the Faculty of Medicine and have attended courses of instruction for four full sessions of not less than nine months each in this University or in some other university, college or school of medicine, approved by this University.

3) No one is permitted to become a candidate for the degree who has not attended at least two full academic years at this University's Faculty of Medicine.

4) Every candidate for the degree must have passed all the required evaluations in the subjects comprising the Medical Course.

Intern Matching Services

A matching service is a clearing house designed to help final year medical students obtain the internships of their choice and to help hospitals and internship program directors obtain the students of their choice. It provides an orderly method for students to decide where to intern and for hospitals to decide which applicants they wish to enroll. For both students and program directors, it removes the factors that generate unfair pressures and premature decisions.

The matching service acts as the student's

agent on the instructions embodied in the student's confidential list of all the internships for which he or she has applied, ranked in order of preference. Similarly, the matching service acts as the hospital's agent on the instructions embodied in its confidential list of all the students who have applied, ranked in order of the hospital's preference.

In the past few years final year students at McGill have participated in three different matching services. The Québec Intern Matching Service sponsored by the Professional Corporation of Physicians of Québec matches applicants from Québec universities seeking mixed or rotating internships in Québec hospitals. The Canadian Intern Matching Service matches applicants for straight, mixed or rotating internships in over 120 training programs across Canada. The National Intern Matching Service matches applicants to American internship programs.

An explanation of these matching services is provided to third-year medical students in the spring.

4.8 REQUIREMENTS FOR LICENCE

Candidates accepted for admission are reminded that it is their personal responsibility to ensure that they fulfill all the licensing requirements of the country in which they intend to practice medicine. A university degree does not confer the right to practise. In each province of Canada, in each one of the United States and in all other countries the authority to licence is vested in a licencing body which has its own special laws and requirements. In many cases a special standard of general education is insisted upon before *beginning* the study of medicine. One of the requirements in several provinces is that the entrance qualifications of the student must be registered with the provincial licencing body for five years before a licence to practise can be obtained.

Candidates accepted for admission should therefore communicate as soon as possible with the licencing body of the country in which they intend to practise and obtain from that licencing body the necessary instructions.

Candidates wishing to practise medicine in the Province of Québec must have a working knowledge of French before they will be granted a permanent licence. To demonstrate this capability, a candidate will normally be required to pass an examination set by the Office de la langue française, unless he or she can show that three years of instruction in a French post-primary school have been completed. The Professional Corporation will require this proof of attendance or of successful completion of the Office examination.

Information on the testing program of the Office may be obtained by writing to: Office de la langue française, S.R.M.E.O.P., Case Postale 316, 800 square Victoria, Montréal, PQ., H4Z 9Z9. Telephone 873-8361.

Full information as to the requirements for registration in the various provinces may be obtained from the Registrars of the Provincial Medical Boards as follows:

ALBERTA – Registrar, 9901 - 108th St., Edmonton, AB T5K 1G9
BRITISH COLUMBIA – Registrar, 1807 West 10th Ave., Vancouver, BC V6J 2A9
MANITOBA – Registrar, 1410-155 Carlton St., Winnipeg, MB R3C 3H8.
NEW BRUNSWICK – Registrar, 10 Prince Edward Street, Saint John, NB E2L 4H5
NEWFOUNDLAND – Registrar, 47 Queens Rd., St. John's, NF A1C 2A7
NOVA SCOTIA – Registrar, Lord Nelson Arcade, Suite 211, 5675 Spring Garden Road, Halifax, NS B3J 1H1
ONTARIO – Registrar, 64 Prince Arthur Ave., Toronto, ON M5R 1B4
PRINCE EDWARD ISLAND – Registrar, 206 Spring Park Rd., Charlottetown, PE C1A 3Y9
QUÉBEC – President-Secretary General, 1440 Ste. Catherine St. West, Suite 914, Montreal, PQ H3G 1S5
SASKATCHEWAN – Registrar, 211 - 4th Ave. S., Saskatoon, SK S7K 1N1

Medical Council of Canada

In order to take the examination of the Medical Council of Canada, a candidate must present a certificate from the Registrar of a Provincial Medical Board to the effect that he holds qualifications accepted and approved of by the Medical Board of that province. Students must have satisfactorily completed required remedial rotations before writing the M.C.C. examinations.

Full information may be obtained by writing to the Registrar, Box 8234, 1867 Alta Vista Drive, Ottawa, ON K1G 3H7.

4.9 GRADUATE TRAINING PROGRAMS IN THE CLINICAL DEPARTMENTS OF THE FACULTY OF MEDICINE

The Faculty of Medicine in conjunction with the affiliated teaching hospitals offers a wide variety of programs leading to McGill Certificates of Intern and Resident Training. Details of the graduate programs available are included in the McGill calendar of Postgraduate Training Programs. Initial inquiries should be addressed to

the Associate Dean (Postgraduate Medical Education), Faculty of Medicine.

4.10 GRADUATE STUDIES AND RESEARCH IN THE MEDICAL SCIENCES

Opportunities for graduate work in the basic medical and clinical sciences leading to the degrees of M.Sc. and Ph.D. are offered by many of the Departments of the Faculty of Medicine. By special arrangements these studies can be pursued concurrently with work towards the M.D., C.M. degree. Details of the Programs available are included in the Calendar of Graduate Studies in Medical and Allied Sciences.

Research in relation to clinical disciplines is carried out in the research laboratories at the Montreal Children's Hospital, the Montreal General Hospital, the Royal Victoria Hospital, the Montreal Neurological Institute, the Shriners Hospital for Crippled Children, l'Institut de Recherche Clinique and the Lady Davis Institute of the Jewish General Hospital. Graduate work in the clinical sciences is supervised by those members of the Departments of Medicine, Surgery, Pediatrics and Obstetrics and Gynecology who are responsible for the direction of research programs. For administrative purposes graduate work in these areas is grouped under the Division of Experimental Medicine, which is a branch of the Department of Medicine and the Division of Experimental Surgery, which is a branch of the Department of Surgery.

Inquiries concerning research training in the medical sciences should be directed to the chairman of the department in which the candidate wishes to receive his or her graduate education. Alternatively, letters may be addressed to: The Associate Dean for Graduate Studies and Research, Faculty of Medicine.

5 COURSES of INSTRUCTION

5.1 ANATOMY

Core Courses

PHASE I

HUMAN ANATOMY 504-131D. The structure of the human body is studied by means of dissection, predissected specimens, lectures, small-group tutorials and audio-visual presentations (closed circuit TV, films, and film loops). The course includes developmental, surface and radiological anatomy and an introduction to clinical anatomy. (Course coordinator: Dr. D.G. Osmond)

Texts: J.T. Aitken, G. Causey, J. Joseph and J.Z. Young, *A Manual of Human Anatomy,* Vols. 1, 2 & 3. 3rd ed. (Churchill Livingstone, 1976); J.C.B. Grant *An Atlas of Anatomy,* 6th ed. (Williams and Wilkins, 1972); or Carmine D. Clemente, *Anatomy, A Regional Atlas of the Human Body,* (Lea & Febiger, 1975); and one of the following: R.S. Snell, *Clinical Anatomy for Medical Students,* 2nd ed. (Little, Brown & Co, 1981); K.L. Moore, *Clinically Oriented Anatomy,* 1st ed. (Williams and Wilkins, 1980); E. Gardner, D.J. Gray and R. O'Rahilly, *Anatomy,* 4th ed. (W.B. Saunders, 1975); W.H. Hollinshead, *Textbook of Anatomy,* 3rd ed. (Hoeber, 1974); R.T. Woodburne, *Essentials of Human Anatomy,* 6th ed. (Oxford University Press, 1978).

EMBRYOLOGY. This course of human developmental anatomy, including normal development and congenital malformations, is integrated with the course in Human Anatomy. (Course Coordinator: Dr. P.K. Lala and Staff).

Texts: J. Langman, *Medical Embryology,* 4th ed. (Williams and Wilkins 1981) or K. Moore, *The Developing Human,* 2nd ed. (Saunders, 1977).

HISTOLOGY 504-121D. The study, by means of the light and electron microscope, of various types of cells and of the structure of various tissues and organs. This course includes laboratory sessions during which sections of a variety of tissues and organs are systematically analyzed. (Course Coordinator: Dr. Y. Clermont)

Texts: A.W. Ham and D.H. Cormack, *Histology,* 8th ed. (Lippincott, 1979); W. Bloom and D.W. Fawcett, *A Textbook of Histology,* 10th ed. (Saunders, 1975); W.M. Copenhaver, D.E. Kelly and R.L. Wood, *Bailey's Textbook of Histology,* 17th ed. (Williams and Wilkins, 1978); E.J. Reith and M.H. Ross, *Atlas of Descriptive Histology,* 2nd ed. (Harper Row, 1970).

CENTRAL NERVOUS SYSTEM 524-121B. The Department of Anatomy is a major contributor to this Interdisciplinary Course. See Section 5.24.

PHASE III

ANATOMY FOR SURGEONS Practical and applied anatomy, radiological anatomy and embryology are covered in a four-week, full-time course designed for students with a particular interest in Surgery. Course work includes dissection and other laboratory exercises, tutorial-discussion groups, student seminars, problem-solving exercises and clinico-anatomical conferences. (Dr. D.G. Osmond, Dr. P.K. Lala and Staff)

Other Courses

The Department offers a range of courses leading to the Honours B.Sc. in Anatomy and is well equipped for graduate research leading to the M.Sc., M.Sc.A., and Ph.D. degrees. See the

Announcements of the Faculty of Science and the Faculty of Graduate Studies and Research.

5.2 ANESTHESIA

Anesthesia is based on the application of the basic sciences coupled to knowledge of relevant clinical medicine and the care of the critically ill patient.

To assist the student to acquire the core aspects of this discipline recommended for all intending practitioners, the Department of Anesthesia participates in many courses during the three phases of the medical curriculum.

PHASE I

EMERGENCY MEDICINE 524-151A. The Department of Anesthesia is a contributor to this Interdisciplinary course. See Section 5.24. It also contributes to the departmental course in Human Anatomy.

PHASE II

During surgical rotations a series of lecture demonstrations related to pre-operative and postoperative care is given by this department.

INTRODUCTION TO CLINICAL SCIENCES 524-231D.

The Department of Anesthesia contributes to this Interdisciplinary Course. See Section 5.24.

PHASE III

The Department of Anesthesia participates in several of the Basic Science options including: Physiology and Pharmacology of Pain, Pharmacology of Anesthetic Drugs, Cardiovascular Physiology and Respiratory Physiology.

In Phase III, students may take a 4 week option in Anesthesia. The objectives and design of the option are similar to those of the Anesthesia electives. In addition the option will provide senior students with an opportunity to receive training in basic life support and participate in the anesthetist's activities outside of the operating room.

5.3 ARTIFICIAL CELLS AND ORGANS RESEARCH CENTRE

The Research Centre provides opportunity for interdisciplinary research and training in the clinical, laboratory, and theoretical aspects of artificial cells, artificial kidney, artificial liver, biomaterial, detoxification, enzyme replacement, biotechnology, and others. A course is offered as a fourth year Basic Science Option. Graduate courses are offered in Experimental Medicine and Physiology. See the *Announcement of the Faculty of Graduate Studies and Research.*

5.4 BIOCHEMISTRY

Core Courses

PHASE I

BIOCHEMISTRY 507-121D. Lectures and clinical demonstrations are given, covering basic biochemistry with reference to disease processes. (Course coordinator: Prof. R.E. MacKenzie)

PHASE III

Courses are offered in selected subject areas as part of the Basic Science Options.

Other Courses

The Department offers a range of courses leading to the Honours B.Sc. in Biochemistry and is well-equipped for graduate research leading to the M.Sc., M.Sc.A., and Ph.D. degrees. See the *Announcements of the Faculty of Science and the Faculty of Graduate Studies and Research.*

5.5 BIOMEDICAL ENGINEERING UNIT

Graduate Courses

The Biomedical Engineering Unit provides opportunities for interdisciplinary research and training in collaboration with other departments. Graduate courses are offered for students with engineering or biomedical backgrounds. See *Announcement of the Faculty of Graduate Studies and Research.*

5.6 EPIDEMIOLOGY AND HEALTH

Core Courses

PHASE I

EPIDEMIOLOGY 513-121B. A series of lectures, exercises and small group discussions dealing with the nature and scope of epidemiology with particular attention to its uses in clinical medicine as well as in public health.

THE PHYSICIAN IN SOCIETY 522-221A (given in cooperation with the Department of Humanities and Social Studies in Medicine. For description, see that Department's listing.)

PHASE II

BIOLOGY OF DISEASE 524-221N. The Department of Epidemiology and Health participates in this Interdisciplinary Course. See Section 5.24.

Graduate Courses

See the *Announcement of the Faculty of Graduate Studies and Research.*

5.7 FAMILY MEDICINE

PHASES I and II

BEHAVIOURAL SCIENCES 524-161D
INTRODUCTION TO CLINICAL SCIENCES 524-231D
BIOLOGY OF DISEASE 524-221N

The Department of Family Medicine is a contributor to these inter-disciplinary courses. See Section 5.24.

PHASE III
Options

Clinical Options for Phase III students are available at the Family Medicine Teaching Units located at The Montreal General, The Jewish General, St. Mary's, The Queen Elizabeth and The Montreal Children's Hospitals. The student will be given the opportunity to develop clinical skills related to ambulatory care. The student will join a primary care team and will participate in clinical decision making and management. In addition to the exposure to the common medical conditions, the student will be exposed to those aspects of medicine which go beyond the usual disease orientation. Because of the nature of the "one to one" teaching, the number of students accepted at each unit at any one time is limited. Special programs can be arranged for students who have a particular interest in any aspect of primary care.

5.8 HUMANITIES AND SOCIAL STUDIES IN MEDICINE

Core Courses

PHASE I

INTERDISCIPLINARY BEHAVIOURAL SCIENCES 524-161D. This Department coordinates and contributes to this Interdisciplinary Course. See Section 5.24.

HEALTH AND THE HEALER IN THE WEST 522-121A. A series of 16 one-and-a-half hour lectures tracing the patterns of health and disease from antiquity to modern times and the development of the medical profession.

THE PHYSICIAN IN SOCIETY 522-221A. (Given in cooperation with the Department of Epidemiology and Health). A series of lectures and small group discussions dealing with the personal life and career of the physician, and with the practitioner's place in the evolving health care system in Canada and Québec.

PHASE III

MEDICAL ETHICS AND JURISPRUDENCE 524-471B. This Department coordinates and contributes to this Interdisciplinary Course. See Section 5.24.

Options

The Department offers a wide range of fourth year options in aspects of the social sciences and humanities as they relate to medicine. For details see the Basic Science Options Catalogue.

5.9 MEDICAL PHYSICS UNIT

Graduate Program

The Medical Physics Unit provides opportunities for interdisciplinary research and training in the field of physics applied to biomedicine. An M.Sc. (Applied) in medical radiation physics is offered to students with backgrounds in the physical and life sciences. Arrangements can also be made for students to register for a Ph.D. in Medical Physics, either through the Department of Physics or through the *ad hoc* interdisciplinary procedure of the Faculty of Graduate Studies and Research. See *Announcement of the Faculty of Graduate Studies and Research.*

5.10 MEDICINE

Core Courses

PHASES I and II

BEHAVIOURAL SCIENCES 524-161D.
EMERGENCY 524-151A.
BIOLOGY OF DISEASE 524-221N.
INTRODUCTION to CLINICAL SCIENCES 524-231D.

The Department of Medicine is a contributor to these Interdisciplinary Courses. See Section 5.24.

PHASE II

BLOCK TEACHING IN MEDICINE 526-321A/B. In this twelve week course, the student has the opportunity to build further on the clinical skills developed in the course on Introduction to Clinical Sciences. The ward is the laboratory, wherein the student sees in the patients assigned, the living embodiment of the conditions described in the textbooks. The clinical experience gained from reading and from examination of patients leads to development of confidence and acumen, as well as to the ability to prepare a meaningful written record, which like a laboratory report, is carefully scrutinized by clinical instructors. Regular oral presentations to attending staff form an integral part of the course. Speciality areas of Dermatology, Ophthalmology, Neurology, Radiology, Clinical Pharmacology, Electrocardiology, all contribute to the student's experience.

By the end of the course the student is expected to be capable of handling competently all the duties of a clinical clerk.

PHASE III

The Department of Medicine will be responsible for a variety of offerings in Phase III of the medical curriculum.

At this level of training, the student accepts the responsibility for the initial work-up, the completion of the written record, the differential diagnosis (or problem list), the plan of investigation, the progress notes and the discharge summary of each patient assigned. By constant reading, by discussions with his resident team and by case presentations, clinical skills are further developed. In attendance at follow-up clinics, the student learns the results of his therapeutic efforts on the wards. A judicious selection of specialty conferences also assists in this process.

Experimental Medicine

See *Announcement of the Faculty of Graduate Studies and Research.*

5.11 MICROBIOLOGY AND IMMUNOLOGY

Core Courses

PHASE I

MICROBIOLOGY AND IMMUNOLOGY 528-221A. A general introduction to Microbiology is offered in the second year of Phase I. The course deals with the general nature of the various groups of micro organisms: the bacteria, fungi, viruses, and protozoan parasites of medical importance. The lecture subjects include biogenesis of bacterial cell surfaces; physiology, metabolism and genetics of bacteria; antimicrobial agents and chemotherapy; mechanisms of microbial pathogenesis; a systematic survey of the major groups of pathogenic bacteria; epidemiology of infectious diseases; mycology and the opportunistic infections by yeasts and fungi; molecular biology of viruses and viral infections; and helminths and protozoa of the gastrointestinal tract. Laboratory periods complement the lectures on bacterial infections, and are organized as small group teaching sessions with the participation of staff and residents from McGill teaching hospitals. These topics are integrated to provide an understanding of the biologic and clinical basis of infectious disease. (Course Coordinator: Dr. J.W. Coulton).

PHASE II

BIOLOGY OF DISEASE 524-221N. The Department of Microbiology and Immunology is a major contributor to this Interdisciplinary Course. See Section 5.24.

PHASE III

A series of courses is offered in specialized interest areas as part of the Basic Science Options block.

Other Courses

The Department offers a range of courses leading to the Honours B.Sc. in Microbiology and is well-equipped for graduate research leading to the M.Sc., M.Sc.A. and Ph.D. degrees. See the *Announcements of the Faculty of Science and the Faculty of Graduate Studies and Research.*

5.12 NEUROLOGY AND NEUROSURGERY

Core Courses

PHASE I

CENTRAL NERVOUS SYSTEM 524-121B. An interdisciplinary course organized by the Department of Neurology and Neurosurgery with the collaboration of other departments. See Section 5.24.

CLINICAL EXAMINATION OF THE NERVOUS SYSTEM. Given in the Introduction to Clinical Sciences, an interdisciplinary course. See Section 5.24.

PHASE II

SEMINARS IN CLINICAL NEUROLOGY AND NEUROSURGERY. Given in Phase II Medicine and Surgery. See Sections 5.10 and 5.23.

PATHOPHYSIOLOGY OF NEUROLOGICAL DISORDERS. Given in Biology of Disease, an interdisciplinary course. See Section 5.24.

PHASE III

OPTIONS. Students can select 4 week rotations in Clinical Neurology.

BASIC SCIENCE OPTIONS. Options concerned with basic science and clinical aspects of Neurology are participated in or organized by members of the Department.

Graduate Courses

See *Announcement of the Faculty of Graduate Studies and Research.*

5.13 OBSTETRICS AND GYNECOLOGY

Core Courses

PHASE I

BEHAVIOURAL SCIENCES 524-161D.
EMERGENCY 524-151A

The Department of Obstetrics and Gynecology contributes in part to the course in Behavioural Sciences and Emergency Care. See Interdisciplinary Courses, Section 5.24.

REPRODUCTIVE MEDICINE 534-121A. A twenty-three hour course covering hormonal regulation of gametogenesis, the menstrual cycle, male reproduction, infertility, puberty, pregnancy, parturition, lactation, contraception and ageing is offered and is designed to lay the basis for future clinical studies. (Course Coordinator: Dr. B. Robaire).

PHASE II

OBSTETRICS AND GYNECOLOGY 534-321A/B. An eight week period is allocated to Obstetrics and Gynecology during Phase II. The class is divided into three sections. The course consists of lectures, a supervised approach to clinical obstetrics and gynecology and a core obstetrical and gynecological experience in the wards, clinics and labour and delivery facilities. The course has been developed, using as a base the material taught in Reproductive Medicine in Phase I.

PHASE III

As part of the core curriculum in Phase III, students will spend a four week clerkship on a clinical teaching unit in one of the four centres within the McGill teaching hospital system. This clerkship is designed to enlarge and enrich the basic course of Phase II. Under supervision, students take an integral part in the management of patients and become a recognized part of the resident-intern-medical student team.

5.14 OPHTHALMOLOGY

Core Courses

PHASE II

INTRODUCTION TO CLINICAL SCIENCES 524-231D. As part of Introduction to Clinical Sciences, the various tests used in routine examination of the eye are demonstrated. Instruction in the use of the ophthalmoscope is emphasized. See Interdisciplinary Courses, Section 5.24.

PRACTICAL CLINICAL OPHTHALMOLOGY. Practical Clinical Ophthalmology including OPHTHALMOSCOPY is taught at the Montreal General, Royal Victoria and Jewish General Hospitals in conjunction with the Medicine rotation.

PHASE III

In Phase III, students may take a 4 week option in Ophthalmology. These options will take place at the Montreal General, Royal Victoria, Montreal Children's and Jewish General Hospitals. Each student will function as a clinical clerk in the respective Eye Department.

Texts: Scheie and Albert, *Adler's Textbook of Ophthalmology,* 8th ed. (Saunders, 1969); Vaughan, Asbury, Cook, *General Ophthalmology,* 6th ed. (Lange, 1971); Frank W. Newell, *Ophthalmology,* 2nd ed. (Mosby, 1969).

References: W.S. Duke-Elder, *System of Ophthalmology,* 12 vols. (Kimpton, 1958-72); Hogan and Zimmerman, *Ophthalmic Pathology,* 2nd. ed. (Saunders, 1962); W.S. Duke-Elder, *Parson's Diseases of the Eye,* 15th ed. (Longman, 1970).

5.15 OTOLARYNGOLOGY

Core Courses

PHASE I

OTOLARYNGOLOGY. An introductory course in Clinical Anatomy pertaining to the ear, nose and throat is presented during Phase I by the Department of Anatomy.

PHASE II

INTRODUCTION TO CLINICAL SCIENCES 524-231D. The Department of Otolaryngology is a contributor to this course, providing instruction in otolaryngological history taking and methods of physical examination. See Section 5.24.

OTOLARYNGOLOGY. "Block Time" clinical instruction is given to small groups of students as part of the Phase II Surgery rotation. In these sessions didactic lectures are given relating to ear, nose and throat disorders, and the students are given the opportunity to examine hospital patients if the group size permits.

PHASE III

Options are available for students on a four week basis at all the integrated teaching hospitals.

Graduate Courses

See *Announcement of the Faculty of Graduate Studies and Research.*

5.16 PATHOLOGY

Core Courses

PHASE I

GENERAL PATHOLOGY 546-121A. This course is largely a self-preparation program taught in seminars. It covers the principles of general pathology and their relationship to commonly encountered diseases. (Course Coordinator: Dr. D. Kahn)

PHASE II

BIOLOGY OF DISEASE 524-221N. The Department of Pathology is a contributor to this Interdisciplinary Course. See Section 5.24.

COURSE IN APPLIED PATHOLOGY. Weekly clinico-pathological conferences are offered in conjunction with the Medicine rotation. (Course Administrator: Dr. J.B. Richardson)

PHASE III

BASIC SCIENCE OPTIONS are given in special, experimental and general pathology.

Other Courses

The Department is well-equipped for graduate research leading to the M.Sc., M.Sc.A., and Ph.D. degrees. See the *Announcements of the Faculty of Science and the Faculty of Graduate Studies and Research.*

5.17 PEDIATRICS

Core Courses

PHASE I

GROWTH AND DEVELOPMENT 543-221A. This course is designed to illustrate how the main periods of growth and development – intrauterine, infancy, childhood, and adolescence – modify the physiologic and pathologic responses of the pediatric patient. Topics covered include quantitative aspects of growth and development, fluid and electrolyte balance, drug metabolism, caloric control of energy, adaptions to extrauterine life, infant nutrition, psychological and neurological development, development of specific organ systems, sexual development, and adolescence. The course consists of lectures, assigned problems and small group discussions. (Course Co-ordinator: Dr. David Rosenblatt)

PHASE III

PEDIATRICS 543-400A/B. Clerkship in Pediatrics as a member of a clinical service, provides the opportunity for experience in the management of pediatric problems under supervision. The clerkship includes ward and ambulatory rotations at the Montreal Children's Hospital and newborn experience at either the Jewish General Hospital or the Royal Victoria Hospital. The clerks participate in a series of core-material conferences in addition to the regularly scheduled educational program of the hospital. (Coordinator: Dr. Wendy MacDonald)

5.18 PHARMACOLOGY AND THERAPEUTICS

The program of instruction in Pharmacology and Therapeutics is designed to provide a systematic coverage of the pharmacodynamics of the more important groups of drugs, the factors that control and modify their effects and the basis for selection and use of drugs in the treatment of disease.

Core Courses

PHASE I

PHARMACOLOGY AND THERAPEUTICS 549-221A. An introductory course concerned primarily with the pharmacodynamics, pharmacokinetics and toxicity of those drugs most frequently encountered in clinical practice.

PHASE II

BIOLOGY OF DISEASE 524-221N. The Department contributes to the Biology of Disease course emphasizing the pharmacological basis for the selection of drugs and the use of these drugs in the treatment of disease. See Section 5.24.

PHASE III

BASIC SCIENCE OPTIONS. A variety of seminar courses covering selected areas of Pharmacology is offered as part of the Basic Science Options Program. Students choose one or more of these courses in areas of their special interest. The seminars are intended to be a look in depth into special subjects rather than broad general reviews.

Other Courses

The Department offers a course in pharmacology to students registered in the B.Sc. programs, and is well equipped for graduate research leading to the M.Sc., and Ph.D. degrees. See the *Announcements of the Faculty of Science and the Faculty of Graduate Studies and Research.*

5.19 PHYSIOLOGY

Core Courses

PHASE I

MEDICAL PHYSIOLOGY 552-121D. Lectures and Laboratories. An advanced course on the functioning of body systems. Emphasis is on aspects of system physiology relevant to disease mechanisms and clinical function testing. Topics include the physiology of blood and body fluids, circulation, central and peripheral nervous system, respiration, the kidney, digestion, immunity and endocrinology. (Course Coordinator: Dr. B. Cooper)

CENTRAL NERVOUS SYSTEM 524-121B.

The Department of Physiology contributes to these Inderdisciplinary Courses. See Section 5.24.

PHASE III

A series of courses are offered in specialized interest areas as part of the Basic Science Options block.

Other Courses

The Department offers a range of courses leading to the Honours B.Sc. in Physiology and is well equipped for graduate research leading to the M.Sc., M.Sc.A., and Ph.D. degrees. See the *Announcements of the Faculty of Science and the Faculty of Graduate Studies and Research.*

5.20 PSYCHIATRY

Core Courses

PHASE I

BEHAVIOURAL SCIENCE 524-161D. The Department of Psychiatry is a major contributor to this Interdisciplinary Course. See Section 5.24.

PHASE II

BIOLOGY OF DISEASE 529-221N. The Department of Psychiatry contributes to this Interdisciplinary course. See Section 5.24.

PHASE III

PSYCHIATRY 555-400A/B. Eight-week block training to acquaint all students (Core program) with the examination of patients and understanding of some of the major factors involved in abnormal behaviour. Diagnostic procedures, psychotherapeutic and physical methods of treatment will be among the aspects covered. Students will be provided with tutors on a group basis and will also have an opportunity to become conversant with certain more specialized areas of the field of Psychiatry. An attempt will be made to provide a comprehensive exposure to current theoretical models and treatment approaches in psychiatry, to indicate the relevance of certain concepts and attitudes to non-psychiatric medical practice, and to supply well-supervised clinical experience which is patient-oriented and responsibility-centered. (Course Coordinator: Dr. R.A. Ramsay)

PSYCHIATRY CLERK OPTIONS. Students with an interest in Psychiatry may take a 4-week rotation with intensive clinical experience in the areas of Psychosocial Medicine, Consultation Psychiatry, Emergency Psychiatry and Brief Psychotherapy.

Graduate Courses

For information regarding courses leading to the M.Sc. Degree in Psychiatry, see the *Announcement of the Faculty of Graduate Studies and Research.*

5.21 RADIATION ONCOLOGY

Core Courses

PHASES I and II

INTRODUCTION TO RADIATION ONCOLOGY. Includes the basic principles and applications of Radiation Physics, Radiobiology and Radiopathology of conditions treated by means of ionizing radiation. Given in conjunction with Pathology and Biology of Disease courses. See Sections 5.16 and 5.24.

PHASE II

CLINICAL RADIATION ONCOLOGY. Teaching is integrated with the clinical rotations.

PHASE III

CLINICAL RADIATION ONCOLOGY. Continuation of the clinical program initiated in Phase II.

Graduate Courses

Diploma in Radiation Oncology. See *Announcement of the Faculty of Graduate Studies and Research.*

5.22 DIAGNOSTIC RADIOLOGY

Core Courses

PHASE I

HUMAN ANATOMY 504-131D. The Department of Diagnostic Radiology is a contributor to this course. See Section 5.1.

RADIOLOGY. An option course offered to first year students. The course will be orientated towards anatomical-radiological correlation. Some lectures will inform the student about the use of radiological procedures in diagnosing diseases. The lectures will be given by experts in different fields of Diagnostic Radiology (i.e., lungs, heart, gastrointestinal diseases), Ultrasound and Nuclear Medicine (diagnostic use of radioisotopes).

PHASE II

BIOLOGY OF DISEASE 524-221N. The Department of Diagnostic Radiology is a contributor to this Interdisciplinary Course. See Section 5.24.

SEMINARS IN DIAGNOSTIC RADIOLOGY. These are held weekly for students during their "block time" in Medicine and Surgery. See Sections 5.10 and 5.23.

PHASE III

DIAGNOSTIC RADIOLOGY OPTION. During Phase III students may take a 4-week rotation in a Diagnostic Radiology program emphasizing diseases of clinical import and the role of Radiology in their evaluation. In addition, all students *during their "clinical clerkship"* may attend regular conferences in the Department of Diagnostic Radiology.

5.23 SURGERY

Core Courses

PHASE I

BEHAVIOURAL SCIENCE 524-161D.
EMERGENCY MEDICINE 524-151A.

The Department of Surgery is a contributor to these Interdisciplinary Courses. See Section 5.24.

PHASE II

BIOLOGY OF DISEASE 524-221N.
INTRODUCTION TO CLINICAL SCIENCES 524-231D.

The Department of Surgery is a contributor to these Interdisciplinary Courses. See Section 5.24.

SURGERY 564-321A/B. During the surgical rotation, students are provided with a variety of learning experiences, so that they may learn the principles of surgery. Much of the teaching is didactic either in the Montreal General Hospital or the Royal Victoria Hospital. Students are also assigned to a surgical service where they may write case reports, act as a dresser and assist at operations. The learning experiences include lectures, case presentations, seminars, tutorial sessions, special core curriculum conferences, bedside teaching, participation in regular service and ward rounds, visits to the Emergency Department and clinical pathological conferences. (Course Co-ordinators: Drs. E.D. Monaghan and L. Ogilvy)

PHASE III

In Phase III of the curriculum, students spend eight weeks as clinical clerks in Surgery. The emphasis is on the practice of Surgery. Four weeks are spent in General Surgery and CVT and, during the other half of the rotation, clinical clerks divide their time, at two weeks each, in the following Surgical disciplines: Urology, Plastic Surgery, Orthopedic Surgery, Trauma, Pediatric Surgery, and Neurosurgery. For these purposes, the students will be sent either to the Montreal General Hospital or to the Royal Victoria Hospital and to the Montreal Children's Hospital for Pediatric Surgery.

Surgical Diseases of Children

Instruction in the Surgical Diseases of Children is given during the Pediatrics rotation.

Orthopedic Surgery

Principles of physical diagnosis of the musculoskeletal system are taught during the course on Introduction to Clinical Sciences in Phases I and II.

The principles of Orthopedic Surgery are covered during the course on Surgery in Phase II. An attempt is made to outline broadly the content of adult Orthopedics, children's Orthopedics and fractures.

Phase III clinical clerks in Surgery will generally spend two weeks in Orthopedic Surgery.

Urology

Lectures are given in Phase II during the Surgery rotation. Subject coverage includes symptoms and signs of significance, congenital anomalies, obstructive uropathy, calculous disease, genito-urinary infections, abnormalities of the external genitalia, patho-physiology of mucturition and neoplastic disease of the genito-urinary tract.

Surgical Research

See *Announcement of the Faculty of Graduate Studies and Research.*

5.24 INTERDISCIPLINARY COURSES

Core Courses

PHASE I

BEHAVIOURAL SCIENCES 524-161D. This course is designed to familiarize students with the following issues: the inter-relationship of psychosocial and biological variables in health and disease; the normal developmental cycle; the impact of disease or disability on an individual's lifestyle, self-image, and family; and the relevance of the foregoing information for a practising physician. Communication and interviewing skills are also introduced. There are 30 lecture sessions in which theoretical information is supplemented with clinical examples and presentation of patients. In addition, the student body is divided into groups with leaders who are practising physicians. Small group meetings are used to discuss lecture and reading material, to develop communication and interviewing skills and to facilitate visits to clinical settings. Lectures and demonstrations – 79 hours. (Course Coordinator: Prof. Margaret Lock)

CENTRAL NERVOUS SYSTEM 524-121B. This course consists of an integrated series of lectures, laboratory classes and clinical demonstrations having to do with anatomical, physiological, biochemical and behavioural aspects of nervous system organization which have particular importance in neurological medicine, thereby preparing the student for the clinical neurology teaching that will be given in the later phases of the medical curriculum. (Course Coordinator: Dr. Donald Lawrence)

EMERGENCY MEDICINE 524-151A. This course consists of a series of twenty-two sessions given in the first year providing an introduction to the principles of emergency medicine. Emphasis is placed on pre-hospital emergency care of the acutely ill and injured. There are practical demonstrations in Cardio-Pulmonary Resuscitation. The required text is *"Emergency Care and Transportation of the Sick and Injured"*, by the Committee on Injuries – American Academy of Orthopaedic Surgeons. (Course Coordinator: Dr. M. Dupré)

HUMAN GENETICS 524-131B. This course is designed to show how recent advances in human genetics affect current medical practice. Topics include mendelian genetics, chromosomal disorders, population genetics, prenatal diagnosis, genetic counselling and treatment of genetic disease. The course consists of lectures and presentation of patients. (Course Coordinator: Dr. David Rosenblatt)

PHASE I and II

INTRODUCTION TO CLINICAL SCIENCES 524-231D. The course objective is to provide

students the opportunity to make their first meaningful contact with patients. In so doing they learn, under supervision, how to take a history, conduct an examination of each of the body systems, create problem lists and arrive at reasonable diagnoses. This course, beginning in September of Year II and completed by mid-January, is the direct responsibility of the Department of Medicine, which is assisted in the teaching and supervision by the Departments of Surgery and Pediatrics. The specialty areas of Neurology, Anesthesia, Orthopedics, Urology, Plastic Surgery, Otolaryngology, Ophthalmology and Dermatology also have an input. At the end of the course there is an assessment of individual progress measured against the stated course objectives. (Course Coordinator: Dr. David Hollomby)

PHASE II

BIOLOGY OF DISEASE 524-221N. An integrated course taught under the auspices of Epidemiology and Health, Microbiology and Immunology, Pathology and Pharmacology, which utilizes teachers from the entire Medical Faculty. The emphasis of the course is on the pathophysiology of common disease states, and an attempt is made to present a balanced approach to major diseases stressing factors that will influence prevention, control and rational treatment. The course is held at the McIntyre Medical Sciences Building. Small group sessions are held at the Royal Victoria Hospital and the Montreal General Hospital where they are integrated with the students' medical and surgical rotations. (Course Coordinator: Dr. A. Tenenhouse)

PHASE III

MEDICAL ETHICS AND JURISPRUDENCE 524-471B. A course required of all students in Phase III. It is an integrated series of lectures planned to include ample time for discussion. The sessions are given by members of the Faculties of Law and Medicine, and other invited guests. The course deals with the ethical issues and conflicts encountered in medical practice and the legal requirements that the profession and society ask of physicians. (Coordinator: Dr. David Roy, Director, Centre for Bioethics, Clinical Research Institute of Montréal)

5.25 ELECTIVE COURSES

Major electives are offered by the following Departments: Anatomy, Anesthesia, Biochemistry, Biomedical Engineering, Epidemiology and Health, Family Medicine, Humanities and Social Studies in Medicine, Medicine, Microbiology and Immunology, Neurology, Neurosurgery, Obstetrics and Gynecology, Ophthalmology, Otolaryngology, Pathology, Pediatrics, Pharmacology and Therapeutics, Physiology, Psychiatry, Diagnostic Radiology, Radiation Oncology and Surgery during Phase II and III. Details are published in the "Elective Calendar" and further information can be obtained from the Coordinator (Elective Program), Faculty of Medicine.

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Faculty of Music

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The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

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PREFACE

The Conservatorium of Music was established in 1904 and the Faculty of Music in 1920. Formerly housed in various buildings belonging to the University, the Faculty moved in 1972 to one location, the Strathcona Music Building, formerly the main section of the Royal Victoria College.

The Strathcona Music Building houses a substantial library containing over thirty three thousand monograph-volumes, bound journals and scores, as well as thirteen thousand volumes of recordings and several thousand texts on microform; a Performance Library of over three thousand titles; a School Music Research Laboratory; an Electronic Music Studio consisting of four individual studios; ample classroom, studio, and practice space, student-lounge and cafeteria; a recital hall and the Pollack Concert Hall (capacity: six hundred) with its large stage (including an orchestra pit), a Recording Studio, projection room, and spacious back-stage facilities (dressing rooms, a large rehearsal room and storage space).

The current student enrolment is over 500 at the undergraduate and graduate levels. The teaching staff includes forty full-time and approximately sixty part-time members. Our students and staff generate a lively performance activity: over 300 concerts and other public events are given annually, including presentations by our Symphony Orchestra, the Faculty Choirs, Bands, Chamber Ensembles, Jazz Bands, the Opera Studio, and recitals by staff and student soloists.

The Strathcona Music Building is part of the McGill Campus centrally located on Montreal's main artery, Sherbrooke Street, and within easy walking distance of the city's famous Place des Arts complex, the French-English theatre district, large department stores and a station of the city subway system conveniently named "McGill".

1 STAFF

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ERIC JOHNSTONE — *Technician*

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STEWART TAYLOR, B.Mus.Ed. (Mich.), M.M. (Manhattan); Principal Trombone, Montreal Symphony; Instructor; Trombone, Ensemble.

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2 GENERAL INFORMATION

2.1 DEGREES AND DIPLOMAS OFFERED

DEGREE OF BACHELOR OF MUSIC (B.Mus.)

The degree of Bachelor of Music may be obtained in any one of the following fields:

Composition (Major and Honours)

Music History (Major and Honours)

Performance (Major and Honours)

School Music (Major and Honours)

Theory (Honours)

In addition to the regular program in Music Theory, interdisciplinary programs are offered which combine Music Theory with studies in one of Computer Science, English, Linguistics, Mathematics, Philosophy or Psychology.

Honours programs are considered prerequisite to graduate studies.

Designated Major

Special programs of study in music may be proposed in consultation with Faculty advisers. Such special proposals must be approved by the Chairmen's Committee and by Faculty Council.

Faculty Program

This program is designed to accommodate those students who are either undecided about the area of music in which they wish to specialize, or who are interested in a pattern of specialization not provided in the established majors and honours programs, or who are interested in combining studies in music with studies in other disciplines.

All of the above programs normally require three years of study following completion of the Québec Diploma of Collegial Studies or four years of study following completion of secondary school elsewhere.

Sound Recording (Prerequisite studies)

Students wishing to prepare for the Master of Music in School Recording should include, in their Bachelor of Music program, the courses listed on page 22 of this Announcement.

MINOR IN JAZZ PERFORMANCE

Students enrolled in a B.Mus. program may elect to undertake a Minor in Jazz Performance. This program combines work in jazz improvisation with big band experience.

LICENTIATE IN MUSIC (L.Mus.)

The Licentiate in Music is offered in Performance and is designed for advanced instrumentalists and singers who wish to concentrate on their practical subject while limiting their theoretical studies to basic areas in History, Theory and Ear Training. This program normally requires three years of study.

CONCERT DIPLOMA

The Concert Diploma is available only to highly-gifted instrumentalists and singers who demonstrate the talent and capacity for a professional performance career. This program normally requires two years of study following the completion of the Licentiate in Music.

DEGREE OF MASTER OF ARTS (M.A.)

The degree of Master of Arts may be obtained in the fields of Musicology, School Music, and Theory.

DEGREE OF MASTER OF MUSIC (M.Mus.)

The degree of Master of Music may be obtained in the fields of Composition, Performance, and Sound Recording.

The above Masters' programs, offered by the Faculty of Music in conjunction with the Faculty of Graduate Studies and Research, require two years of study. Applicants who hold the equivalent of this University's B.Mus. with Honours in the area of specialization may be able to complete the Masters' degrees in less than two years.

DEGREE OF DOCTOR OF MUSIC (D.Mus.)

The degree of Doctor of Music is available in Composition and requires a minimum of two years following the completion of the Master of Music Degree in Composition.

For details of the Masters' and Doctoral programs, please consult *Section "C" Humanities of the Faculty of Graduate Studies and Research Announcement.*

2.2 OPTIONS FOR SPECIAL AND VISITING STUDENTS

Individuals wishing to take courses without proceeding towards a degree or diploma may be admitted as Special students if they possess the necessary prerequisites for the course(s) concerned.

Individuals wishing to take courses at McGill for credit at another university may be admitted as Visiting students provided they have the prerequisites for the course(s) concerned.

2.3 MUSIC CREDIT OPTIONS FOR STUDENTS IN OTHER FACULTIES

The Faculty of Music offers three groups of courses that may be taken for credit by students in other faculties.

The first group consists of music literature and theory courses especially designed for students from other faculties who may not have taken formal studies in music but who wish to take elective courses in the cultural, historical and theoretical aspects of music.

The second group is the sequence of courses in music theory and history which are part of the Faculty of Music undergraduate curriculum. These courses may be taken by those having the necessary prerequisite studies in music.

The third group of courses consists of selected music ensembles open, by audition, to students in other faculties. These ensembles include Symphony Orchestra, Wind Symphony, Jazz Ensemble, Choral Ensembles, Opera Studio and several small ensembles.

For further details on these courses, please consult the Music section of the *Faculty of Arts Announcement.* Other music courses may be taken by qualified students from other faculties providing they obtain permission from the relevant department in the Faculty of Music and from the Associate Dean of their own faculty.

2.4 ACADEMIC CREDIT TRANSFER AGREEMENT

Students wishing to take courses at another university in the province of Québec for credit towards their McGill degree should refer to the section entitled "Academic Credit Transfer Agreement" in the *General Announcement* for details.

2.5 SUMMER SESSION

The Summer Session offers courses starting in May and June, and in July and August.

Students may take a maximum of 18 credits for the whole summer session. Those wishing to take more than 3 credits in any one month must obtain the permission of their Departmental Chairman.

Information concerning course offerings and application forms may be obtained from the McGill Summer Session Office (392-6740).

2.6 McGILL CONSERVATORY OF MUSIC

The Conservatory offers private and group instruction in all instruments, voice, theory and ear training from the elementary level up to and including Collegial II.

Theoretical and practical examinations are offered at all levels each spring for students of the Conservatory as well as for external applicants.

For further information, please write to the Conservatory of Music, 555 Sherbrooke Street West, Montreal, PQ H3A 1E3 or phone 392-4550.

2.7 SCHOLARSHIPS AND FINANCIAL AID

General information on scholarships, including McGill Entrance Scholarships, as well as on financial aid, is available in the *General Announcement*. A detailed listing of all awards is contained in the *Undergraduate Scholarships and Awards Announcement* available at the Registrar's Office.

A limited number of Music entrance scholarships in certain instruments and in voice are awarded to incoming students on the basis of auditions. Application forms may be obtained from the Administrative Assistant (Admissions), Faculty of Music.

Faculty of Music scholarships are awarded on the basis of a student's standing in the previous academic session, while taking into account the stipulations of the individual awards. In order to be eligible for any of the Music scholarships, awards and prizes, a student must be registered for at least 24 credits in the current regular academic session and must have been a full-time student during the preceding year. Application forms may be obtained from the Faculty of Music.

The University Scholarships Committee makes a number of awards each year based solely on a student's academic standing. Only undergraduate degree students are eligible. No application is required. In order to be considered for these awards, a student must have completed a minimum of 27 credits during the regular academic session.

2.8 STUDENT SERVICES AND RESIDENTIAL FACILITIES

Information concerning Student Services and residential facilities is contained in the *General Announcement* available at the Registrar's Office.

3 ADMISSION

3.1 APPLICATION PROCEDURE

All inquiries regarding admission should be directed to the Administrative Assistant (Admissions), Faculty of Music, McGill University, 555 Sherbrooke Street West, Montreal, PQ H3A 1E3.

In order to ensure early consideration, applications should be made by March 1 for admission in September. For admission in January, the application deadline is November 1, if a resident in Québec or September 1, if not a resident in Québec. Applications received after these deadlines will be considered if places are still available.

Applications must be accompanied by a non-refundable application fee of $15 and a detailed description of the applicant's musical background and training including photocopies of diplomas, certificates and/or transcripts. An up-to-date transcript of the applicant's academic record must also be forwarded to the Faculty.

All applicants must perform an audition of approximately 15 minutes' duration. The student should choose material that will represent different musical periods and reveal musicianship and technical proficiency to best advantage. Applicants for the Concert Diploma program must prepare an audition of recital material lasting approximately 60 minutes. For dates of entrance auditions, please refer to Section 8, Calendar of Dates. Tape-recordings are acceptable when distance prevents an applicant from attending an audition in person.

Composition applicants are asked to submit samples of their work.

Applicants seeking exemption from program requirements on the basis of advanced music studies or work done at other universities will be required to sit placement examinations in Ear Training, History, and Theory, in May or early September, to determine their course levels.

3.2 ENTRANCE REQUIREMENTS

B.Mus. (Québec Applicants)

The normal admission requirement to B.Mus. degree programs is the Québec Diploma of Collegial Studies (Music Concentration) with the equivalent of McGill Conservatory Collegial I Instrument or Voice. Applicants for a Performance program must be able to demonstrate a performance level equivalent to McGill Conservatory Collegial II.

B.Mus. (Non-Québec Applicants)

High School graduates (minimum years of schooling: 12 years) from other provinces or countries may apply for admission to any of the major or honours programs described in Section 6, leading to the Bachelor of Music Degree, and may be admitted to a program of approximately 120 credits, normally requiring four years to complete. These programs will include, in addition to the requirements listed in Section 6, the following first-year courses:

Title	*Course No.*	*Weight*
Melody and Counterpoint	211-110A or B	3 cr.
Elementary Harmony and Analysis	211-111A or B	3 cr.
Ear Training (Fixed Doh)	129A or B and - 131A or B	4 cr.
History Survey (Mediaeval, Renaissance, Baroque)	214-184A	3 cr.
History Survey (Classical, Romantic, 20th Century)	214-185B	3 cr.
Practical Study		4-8 cr.
Basic Ensemble Training		2 cr.
Arts/Science Elective		6 cr.
		Total: 28-32 cr.

Applicants who can demonstrate through auditions and placements tests that they have mastered the material in any of the above courses will be exempt from them and may proceed to more advanced courses (see Section 6).

L.Mus.(All Applicants)

For admission to the Licentiate program, the applicant must have completed secondary school. The applicant's music qualifications must be equivalent to McGill Conservatory Collegial II Instrument or Voice and Secondary V Theory/Ear Training. An entrance audition is required.

CONCERT DIPLOMA (All Applicants)

For admission to the Concert Diploma program, the applicant must have the Licentiate in Music of the McGill Faculty of Music or its equivalent and must pass a performance audition.

APPROXIMATE EQUIVALENTS TO ENTRANCE REQUIREMENTS IN PRACTICAL SUBJECTS (McGill Conservatory Collegial I – Instrument/Voice)

Québec CEGEPS	CEGEP II
Toronto Conservatory	Grade 9
Western Board	Grade 9
Mount Allison	Grade 9
Associated Board of the Royal Schools of Music	Grade 7

The above listing is intended only as a general guide. Admissibility to any program is determined by audition. Students wishing to major in Performance should be approximately two years more advanced, and be able to demonstrate potential as performers at their audition.

MATURE STUDENT ADMISSION

Applicants of 21 years of age or older who lack the academic background normally required will be considered for admission as mature students provided they possess the music entrance requirements.

KEYBOARD PROFICIENCY TEST

Students entering any of the B.Mus. programs should be prepared to demonstrate keyboard proficiency sufficient to enable them to use the piano as a tool in their studies at McGill. Those who are unable to do so must enrol in one or both of Keyboard Proficiency I (211-170A or B) and II (211-171A or B) until they either pass both courses or successfully complete the test. (Keyboard and guitar players who have auditioned and been admitted to either the Major or Honours program in Performance are exempt from this requirement.)

The Keyboard Proficiency requirement applies to transfer students from other universities and colleges, transfer students from McGill Faculty of Music programs not requiring Keyboard Proficiency, and students jointly registered in double programs, one of which does not have a Keyboard Proficiency requirement.

The requirements of the test are as follows:

Dominant Seventh chords in all inversions, with resolutions.
Cadences and Progressions: V-I; IV-I; V-VI; I-IV-V-I; II_6-V; N_6-V-I; V^7-VI.
Some longer Progressions, eg. I-III-VI-II_6-$I^6/_4$-V-I.
The $^6/_4$ chord: cadential, passing, arpeggio, appoggiatura, and auxiliary.
Elementary figured bass.
Clefs – 2-voice exercises with one voice in the tenor or alto clef.
Simple transposition in two parts.
Playing of two parts, one of which will be for a transposing instrument.

Sightreading of a simple piece.
Sightreading of individual lines from orchestral scores.
Playing a short prepared piece in 2- or 3-part or in simple homophonic texture (a difficulty equivalent to McGill Conservatory Secondary III).

Students wishing to prepare for this test before entering the Faculty of Music may consult the following publications for preparatory material. (These books are not necessarily the required texts for the courses in Keyboard Proficiency.)

Scales and Chords, edited by Ernest A. Dicks (Frederick Harris)

Preparatory Exercises in Score-Reading, by R.O. Morris and Howard Ferguson (Oxford University Press)

Elementary Keyboard Harmony, by Maurice Lieberman (W.W. Norton)

Figured Harmony at the Keyboard, by R.O. Morris (Oxford University Press)

The Keyboard Proficiency Test may be taken during the Music Enrolment Period in September or during the regular practical examination periods in December and April (see Section 8, Calendar of Dates).

GENERAL INFORMATION FOR NON-CANADIAN STUDENTS

Non-Canadian students and students who are not permanent residents **must** first obtain a student visa from a Canadian Embassy or Consulate in their area. Student visas may be renewed annually in Canada subsequent to the students' registration. See *General Announcement* for further details.

COMPULSORY HEALTH INSURANCE FOR NON-CANADIAN STUDENTS

All full-time non-Canadian students and students who are not permanent resident **must** enrol in the compulsory McGill Non-Canadian Student Health and Accident Insurance Plan. Full information concerning this Plan is available from the Health Service or the Liaison Officer to the Dean of Students.

4 FEES

The University reserves the right to make changes without notice in the published scale of fees.

4.1 TUITION FEES

The basic tuition fee is $19.00 per credit. This fee includes all the regular charges of the University for registration, tuition, laboratories, and libraries.

New foreign students are required by the Québec government to pay 60% of the estimated cost of their studies. In 1981-82 this was $4,128 per year or $137.60 per credit. The rate for 1982-83 will be announced as soon as it is determined by the government. Returning foreign students will pay $3,500 per year or $116.70 per credit and an additional $1,000 per year in each subsequent year until they reach the rate paid by newly admitted foreign students.

Individual practical instruction as indicated in the various degree and diploma programs (Section 6) is included at the per-credit rate only while the student is full-time, and for a maximum number of years according to the table below:

Maximum Years of Practical Instruction at $19.00 per credit, 1 hour per week

Category of Student	*B.Mus. (Perf.)*	*B.Mus. (non-Perf.)*
CEGEP graduates	3	2
Non-Québec high school graduates (Gr. 12)	4	3
Mature students	3	2
Transfer & degree holders who require more than 60 credits to complete the B.Mus.	3	2
Transfer & degree holders who require less than 60 credits to complete the B.Mus.	2	2

L.Mus. students are entitled to practical instruction at the rate of $19.00 per credit for a maximum of 3 years, 1 hour per week; Concert Diploma students, 2 years, 1-1/2 hours per week.

The maximum of 3 years of practical instruction for L.Mus. students includes instruction received while in a B.Mus. program either during or prior to registration in the L.Mus. program.

N.B. Part-time students in the B.Mus. and L.Mus. programs and those who have exhausted the above-listed maxima will be charged $350 per term ($700 per year) for practical instruction. (Concert Diploma students: $525 per term or $1,050 per year.)

Special or **Visiting** students will also be charged $350 per term for 14 one-hour lessons, as will all other students taking instruction in a second practical subject.

Voice Coaching (253-300A/B) is available at the per-credit rate for a maximum of two years for full-time students only. In all other cases, the fee for this course is $230 per term.

Special students in the **Opera Studio** will be charged $230 per term ($460 per year). Degree or diploma candidates registered in Opera Studio, as well as Special students taking practical instruction at $350 per term, will be charged the per-credit fee for Opera Studio.

4.2 STUDENT FEES

All students registered in the University are required to pay fees for Student Services and Students' Societies. All students registered in the Faculty of Music are also required to pay an Instrument Fee.

Fees for students registered in Music will be assessed as follows:

Credits Per Term	*Student Services*	*Students' Societies*	*Instrument Fee*
9 or more	$47.25	$21.50	$25.00
6.5 to 8.5	25.25*	7.95	20.00
3.5 to 6.0	15.75*	7.95	15.00
Up to 3.0	9.50*	7.95	10.00

*Excludes Athletics: At the discretion of the Director of Athletics, a student may participate in the Athletics program upon payment of an additional $23.75 per term.

4.3 SPECIAL FEES AND PENALTIES

Application for Admission	$15.00†
Late registration	50.00
Late payment fee (after specified date):	
1st 30 days	10.00
After 30 days	25.00
Late change of course fee	10.00
Late Performance exam application fee	15.00††
Summer practice fee	40.00
Application for Graduation	25.00†††
Duplicate Student Identity Card	5.00
Duplicate diploma	25.00
Certified transcript of student's record:	
First copy of each order	2.25
Additional copies made at the same time, each	.75
Re-reading examination paper (non-refundable)	25.00
Supplemental examinations, each written paper	25.00
Practical examination fee: applies to students not registered for practical instruction during the term in which they take their practical exam or for supplemental examinations	60.00

†Students already at McGill who are making application to a professional faculty or the Faculty of Graduate Studies and Research are not required to pay this fee. ††Permission required from the Chairman of the Department of Performance. †††Application for Graduation Fee: Applications by students who expect to graduate at the Spring Convocation must be filed by April 1st of each year and by those who expect to graduate at the Fall Convocation by October 15th of each year. An application form will be mailed to each eligible student and must be returned to the Registrar's Office together with the fee of $25.00 by the appropriate date listed above. It is the students' responsibility to ensure that their names are included on the graduation list.

4.4 PAYMENT OF FEES

Students entering the University for the first time and those returning in Graduate Studies are required to pay their fees either by mail or in person at the Cashier's Office within 10 days after registration. For students registering in September, the second instalment is due before January 15.

Returning students from the previous year (except in Graduate Studies) must pay their tuition fees for the Fall term, plus half their annual Students' Societies and Student Services fees by mail or in person to the Accounting Office before August 20, otherwise they will not permitted to register. Instructions for paying fees in advance will be mailed to all returning students, either with their Sessional Reports of Standing or a short time later. Students who have been notified by the University of the award of a scholarship, bursary or student loan, and who require this award for payment of the first instalment of fees, must obtain permission from the Student Aid Office to delay payment of fees.

The Winter term fees are due January 15. A late payment fee as stated above is charged for payment after the specified dates.

Students registering late must pay their fees at the time of registration, failing which they become subject to the late payment fee.

As soon as possible after the prescribed dates for the payment of tuition fees, the Chief Accountant will send to the Registrar a list of the registered students who have not paid these fees. Transcripts of records, diplomas and permission to re-register will be withheld until such time as tuition fees as well as outstanding residence fees, library fines or other charges are paid.

4.5 REFUNDS

Students who withdraw from the University or from one or more courses during the term may be eligible for a partial refund of that term's fees. Details are found in the *General Announcement.* (Also see *Music Announcement,* Section 5, Academic Information, numbers 12 and 13.)

Students withdrawing from practical instruction after the end of the course change period up until the official final date for withdrawals will be charged $28 per week (for 1 hour lessons; $42, for 1½ hours) up to a maximum equivalent to the total fees charged for the course.

Full refunds for practical instruction will be given up to the end of the course change period, and no refunds will be given after the final calendar date for withdrawal from courses.

5 ACADEMIC INFORMATION

Students are required to be punctual at all classes and lessons.

Grades in theoretical subjects are calculated on the basis of classroom and/or examinations. Students are warned that by missing the classwork they risk failure in the subject concerned.

1. ACADEMIC LOAD: Degree and diploma candidates are registered as full-time or part-time depending on their credit load per term.

Full-Time: those enrolled in a B.Mus., L.Mus. or Concert Diploma program, taking a minimum of 24 credits during the regular academic session or 12 credits per term.

Part-Time: those enrolled in a degree or diploma program taking less than the minimum credits listed above.

Special: those who are not proceeding towards a degree or diploma. Special students in practical subjects may not register for less than one term (14 weeks).

Visiting: those taking courses at McGill for credit towards a degree at another university.

2. CREDIT SYSTEM: The Faculty of Music uses a 4-point Course Credit System in which numerical values are attached to letter grades as in the following list:

Grades	*Equivalents*	*Points*
A	85% - 100%	4.0
A−	80% - 84%	3.7
B+	75% - 79%	3.3
B	70% - 74%	3.0
B−	65% - 69%	2.7
C+	60% - 64%	2.3
C	55% - 59%	2.0
D	50% - 54% (non-continuation pass)	1.0
F	0% - 49%	0
P	Pass (use must be approved by area co-ordinator)	*
J	Absent from final exam or major part of course without permission	0
R	Credit for satisfactory participation (permitted only in Dept. of Performance; use must be approved by Department Chairman)	*
U	Unsatisfactory participation (ensembles only)	0

* No grade points assigned; does not affect student's average.

3. GRADE POINT AVERAGES: The earned grade points for each course are calculated by multiplying the credit rating of the course by the numerical equivalent of the letter grade earned. Standing is determined on the basis of a grade point average (GPA) computed by dividing the sum of the grade points accumulated during the year by the total course credits attempted.

Example	Credits Attempted	Grade		Numeric Value	Grade Points
Course 1	6	A	=	4.0	24
Course 2	4	B+	=	3.3	13.2
Course 3	2	C	=	2.0	4
Course 4	3	D	=	1.0	3
Course 5	8	F	=	0	0
Course 6	8	A−	=	3.7	29.6
Course 7	1	C+	=	2.3	2.3
Course 8	1	J	=	0	0
	33				76.1

Sessional GPA = 76.1 ÷ 33 = 2.31

The cumulative grade point average (CGPA) is the grade point average calculated using the student's entire record since entering the degree or diploma program. A failed course will continue to be used in the calculation of the CGPA even after the course is repeated and passed, or if a supplemental examination is taken. A supplemental mark, whether a pass or a failure, is included in the calculation of the CGPA.

4. PREREQUISITES: No students may register in a course for which they have not passed all the prerequisite courses with a grade of C or better except by written permission of the Departmental Chairman concerned.

5. MUSIC ELECTIVES: Unless otherwise specified, any music course numbered at the 200 level or higher which is not a required course in the student's program can be counted as a Music Elective. Two credits per term of practical instruction may be applied as Music Electives only if the lessons are taken after completion of the final examination required in the student's program. Practical instruction in a second instrument may be taken for elective credit under certain conditions. Consult the Department of Performance for details.

6. ARTS AND SCIENCE ELECTIVES: In all B.Mus. programs, students are required to complete a minimum of 18 elective credits from courses offered by the Faculties of Arts or Science (or other faculties, with the approval of the student's Departmental Chairman). Of these credits, 12 must be in one subject area, with either a continuation sequence or 6 credits at the −300 level or higher. Students admitted from high schools outside Québec, not holding a D.C.S., must complete an additional 6 credits of Arts and Science electives for a total of 24.

The Faculty of Music allows up to 6 credits in *English as a Second Language* as an Arts elective in the B.Mus. program. These credits may be taken in the Faculty of Arts at the Intermediate or Advanced level OR they may be taken at the Centre for Continuing Education at level 4 or above. Courses in English as a Second Language will **not** be permitted as the continuation course mentioned above.

7. AUDITING: In general, auditing is not permitted in Faculty of Music courses. With the permission of the Departmental Chairman concerned, students may audit a course which is not a required course in their program. Auditing is not permitted by Special or Visiting students. It should be noted that auditors are not registered for such courses, that the instructor is not expected to correct any assignments or papers done by an auditor, and that an auditor may neither write an examination in that subject nor receive any credit for such course.

8. VERIFICATION OF PROGRAM: Students are responsible for their registration in the proper courses and programs. A Verification of Registration Form is sent to every student soon after the Course Change Period each term, and it is the student's responsibility to check it for errors. Students must bring any errors to the attention of the Student Records Office, in writing.

Students who expect to graduate at the end of the academic year are responsible to ensure that they are registered in all the courses required for graduation, and should confirm that their intention to graduate is correctly indicated on their Verification Form.

9. GRADUATION REQUIREMENTS:

1. Completion of all courses and proficiency requirements specified in the candidate's program. Those registered in two programs must fulfil all requirements for both programs. Students must pass all *required* courses in their programs with a grade of C or better.
2. Minimum cumulative grade point average of 2.0.
3. Completion of a minimum of credits in residence at McGill University (B.Mus: 48 cr., L.Mus: 48 cr., Concert Dip: 32 cr.)

10. GRADUATION WITH DISTINCTION: Students with a CGPA of 3.6 will be graduated with *Distinction;* with a CGPA of 3.8, with *High Distinction.*

Students majoring in Performance who obtain a grade of A— in their final performance examination will graduate with *Distinction* in their instrument; a grade of A will confer *High Distinction.*

11. COURSE CHANGES: Students are permitted to change courses and/or sections of a course during the first two-week period of classes in each term. Forms for this purpose are available at the Reception Desk of the Strathcona Music Building. (This time is referred to as the official Course Change Period.)

Late course change requests, if approved, will be processed only upon payment of $10. No charge will be made for changes imposed by the Faculty. If students' registrations must be corrected after the Course Change Period to bring their records into conformity with the courses they are actually taking, the students will be charged the $10 fee.

12. WITHDRAWAL FROM COURSE(S): Withdrawal from any course after the end of the Course Change Period requires the approval of the Departmental Chairman concerned. In such cases the student's mark in the course will be "W". Course Change forms are available at the Reception Desk of the Strathcona Music Building.

The final deadlines for withdrawing from Music courses are:

For a one-term course: The end of the fifth week of classes.

For a two-term course: The end of the eleventh week of classes in the first term.

THE DEADLINE FOR WITHDRAWING FROM ENSEMBLES IS THE END OF THE SECOND WEEK OF CLASSES IN ANY TERM.

N.B. Students who do not complete a course for which they remain registered will receive a grade of "F" or "J".

13. WITHDRAWAL FROM UNIVERSITY: Students who wish to withdraw from the University, *whether or not they wish to apply for remission of fees,* must submit a Withdrawal Form to their Departmental Chairman for signature. This form is available at the Reception Desk of the Strathcona Music Building. Students withdrawing from all their courses must attach their Student Identity Card to the withdrawal form. A student considering withdrawal is strongly advised to consult the Dean or Departmental Chairman before making a final decision. Some fees for the term in which the student withdraws are refundable under conditions described in the *General Announcement* available from the Registrar's Office. For information on refunds of fees for practical instruction, see Section 4.5 (Refunds).

14. SATISFACTORY STANDING: To achieve Satisfactory Standing in a degree or diploma program, students must maintain a sessional GPA of 2.00 or better; and for students in Performance, also attain a grade of A or B for their instrument. See Section 6, Programs of Study, for additional Special Requirements. Students in satisfactory

standing wishing to register for more than 18 credits per term must obtain the permission of their Departmental Chairman.

15. PROBATIONARY STANDING: A student whose GPA drops to between 1.5 and 1.99 is placed in probationary standing. Students in probationary standing must return to satisfactory standing within one year by obtaining a GPA of 2.5 or a CGPA of 2.0, otherwise they will be placed in unsatisfactory standing.

Performance Majors who do not attain a B standing in their major field are placed in probationary standing.

Students in probationary standing may not register for more than 15 credits per term.

16. UNSATISFACTORY STANDING: A GPA of less than 1.5 places a student in unsatisfactory standing. Students in unsatisfactory standing will be required to withdraw. Upon appeal to the Faculty, they may be readmitted to probationary standing. Students in unsatisfactory standing for a second time will be required to withdraw permanently.

17. INCOMPLETES: At the discretion of the instructor a mark of "K" (Incomplete) may be given to a student who, due to extenuating circumstances, has not finished the course work on time. The deadline for completion and submission of the required work shall be set by the instructor but may not be later than 4 months after the "K" was given. If the "Incomplete" is not removed by this time, the mark will be changed to "KF" (Incomplete Failed), unless an extension has been granted (K*). Completion of the course will cause the "K" to be replaced on official transcripts by the mark earned.

In exceptional cases, students are given permission by their Departmental Chairman or the Student Progress Committee to leave a course permanently incomplete (without penalty). The symbol "K" will be replaced by "KK"; in which case, the student's Grade Point Average will be calculated without including this course.

18. DEFERRALS: Deferred examinations are permitted in case of illness or other exceptional circumstances. A written request for the deferment of an examination must be submitted to the Departmental Chairman. A deferred examination will be entered as "L" which will be replaced on official transcripts by the actual mark when the examination is written.

19. SUPPLEMENTALS: Supplemental examinations may be given at the discretion of the instructor. A student who receives a mark below 30% in a course is not permitted to take a supplemental examination but must repeat the course.

20. RE-READING OF EXAMINATIONS: A student wishing to have an examination paper re-read should apply in writing to the Departmental Chairman. There is a non-refundable fee of $25. The mark given in the re-reading, whether higher or lower, will replace the mark originally given. Any request to have a *term paper* or other course work reassessed must be made directly to the instructor concerned.

21. SPECIAL CODES: When appropriate, courses are identified by the following codes:

T – Credit by examination only.
X – Extra course, excluded from GPA's.
Y – Not for credit, excluded from GPA's.

22. ENSEMBLE POLICY AND REGULATIONS: The Ensemble program comprises several areas of activity designed to provide a cohesive curriculum in practical musicianship for every student. Much of this training is accomplished in the context of either a choral or large instrumental ensemble over the three-year period that students normally spend on undergraduate studies. Performance majors as well as sufficiently advanced players and singers from other programs are encouraged to participate in one or more small ensembles which serve their particular interest.

Basic Ensemble Training requirements vary by program and according to the student's practical concentration. For ensemble purposes, the Orchestral instruments include only the flutes, oboes, clarinets, bassoons, saxophones, french horns, trumpets, trombones, tubas, percussions, harps, violins, violas, cellos and double basses. Students studying these instruments will receive their basic ensemble training in the large instrumental ensembles. Students whose principal instrument is other than one of these will normally receive their basic ensemble training in the choral ensembles.

Elective Ensembles are chosen by students to reflect their particular interests and may, with departmental approval, be applied as Music Elective credit. Students electing an ensemble will audition and be placed accordingly, by decision of the Ensemble Committee.

The previous ensemble participation of students coming to McGill with a completed B.Mus. will be recognized if their ensemble experience was similar to that required of the McGill B.Mus. student.

Assignments to all ensembles are made following auditions in early September and are posted on the Department of Performance notice board. Reassignments may be made from time to time during the session and will also be posted.

Students are required to attend all rehearsals and concerts of the ensemble classes in which they are either registered or auditing. Except for reasons of ill health or in the case of an excused absence granted by the Ensemble Committee, any absence may result in a failing grade for the student. A failing grade in one of the mandatory ensembles obliges the student to make up the credit at a later date. A subsequent failure in the same course may result in the student being required to withdraw from the Faculty.

6 PROGRAMS OF STUDY

6.1 *DEPARTMENT OF THEORY: Composition; History; Theory; Faculty Program*

B.Mus. WITH A MAJOR IN COMPOSITION

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
COMPOSITION			
Composition	213-240D	6	
Composition	213-245D	3	
Composition	213-340D	6	
Electronic Music	213-341A	3	
Electronic Music	213-342B	3	
Composition	213-440D	6	
			27
THEORY			
Introductory Orchestration	211-260D	4	
Middle & Late 19th Century Theory & Analysis	211-310A or B	3	
20th Century Analysis	211-427D	4	
One of:			
Tonal Counterpoint	211-322D	6	
Modal Counterpoint	211-323D	6	
			17
EAR TRAINING *			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8
MUSIC HISTORY, LITERATURE OR PERFORMANCE PRACTICE ELECTIVES			6
PERFORMANCE			
Practical Concentration: 2 credits per term. Completion of Concentration Final Examination			8
Basic Ensemble Training: minimum of 2 credits per year for 3 years** (one of Choral Ensemble, Orchestra, Wind Symphony or Concert Band during each term)			6
ARTS AND SCIENCE ELECTIVES			
Three full courses or the equivalent — at least one must be a continuation course to the 300 level.			18
			90

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Theory.

**A maximum of 2 credits of Elective Ensemble may be substituted for 2 credits of Basic Ensemble Training, with Departmental approval.

B.Mus. WITH HONOURS IN COMPOSITION

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
COMPOSITION			
Composition	213-240D	6	
Composition	213-245D	3	
Composition	213-340D	6	
Electronic Music	213-341A	3	
Electronic Music	213-342B	3	
Composition	213-440D	6	
			27
THEORY			
Introductory Orchestration	211-260D	4	
20th Century Analysis	211-427D	4	
Orchestration	211-460D	4	
Two of:			
Tonal Counterpoint	211-322D	6	
Modal Counterpoint	211-323D	6	
19th Century Analysis	211-327D	4	
Fugue	211-522D	6	
Advanced Harmony	211-523D	6	
			22 or 24
EAR TRAINING *			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
Dictation	212-432B	2	
			10
MUSIC HISTORY, LITERATURE OR PERFORMANCE PRACTICE ELECTIVES			6
PERFORMANCE			
Practical Concentration: 2 credits per term. Completion of Concentration Final Examination			8
Basic Ensemble Training: minimum of 2 credits per year for 3 years** (one of Choral Ensemble, Orchestra, Wind Symphony or Concert Band during each term)			6
ARTS AND SCIENCE ELECTIVES			
Three full courses or the equivalent — at least one must be a continuation course to the 300 level.			18
			97-99

Special Requirements:

Cumulative Grade Point Average: minimum 3.00
All COMPOSITION courses — mark of A or B in each.

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Theory.
**A maximum of 2 credits of Elective Ensemble may be substituted for 2 credits of Basic Ensemble Training, with Departmental approval.

B.Mus. WITH A MAJOR IN MUSIC HISTORY

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
HISTORY			
Mediaeval Music	214-380B	3	
Renaissance Music	214-381A	3	
Baroque Music	214-382A	3	
Classical Music	214-383A	3	
Romantic Music	214-384B	3	
Twentieth Century Music	214-385B	3	
			18
THEORY			
Tonal Theory & Analysis I	211-210A or B	3	
Tonal Theory & Analysis II	211-211A or B	3	
Middle & Late 19th Century Theory & Analysis	211-310A or B	3	
20th Century Theory & Analysis	211-311A or B	3	
19th Century Analysis	211-327D	4	
			16
EAR TRAINING *			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8
MUSIC ELECTIVES (with Departmental Approval)			3
FREE ELECTIVES			13
PERFORMANCE			
Practical Concentration: 2 credits per term. Completion of Concentration Final Examination			8
Basic Ensemble Training: minimum of 2 credits per year for 3 years** (one of Choral Ensemble, Orchestra, Wind Symphony or Concert Band during each term)			6
ARTS AND SCIENCE ELECTIVES			
Three full courses or the equivalent — at least one must be a continuation course to the 300 level.			18
			90

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Theory.

**A maximum of 2 credits of Elective Ensemble may be substituted for 2 credits of Basic Ensemble Training, with Departmental approval.

B.Mus. WITH HONOURS IN MUSIC HISTORY

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
HISTORY			
Mediaeval Music	214-380B	3	
Renaissance Music	214-381A	3	
Baroque Music	214-382A	3	
Classical Music	214-383A	3	
Romantic Music	214-384B	3	
Twentieth Century Music	214-385B	3	
Bibliography and Research Methods	214-490A	3	
Paleography	214-491D	3	
			24
THEORY			
Tonal Theory & Analysis I	211-210A or B	3	
Tonal Theory & Analysis II	211-211A or B	3	
Tonal Counterpoint	211-322D	6	
19th Century Analysis	211-327D	4	
20th Century Analysis	211-427D	4	
One of:			
Modal Counterpoint	211-323D	6	
Fugue	211-522D	6	
Advanced Harmony	211-523D	6	
			26
EAR TRAINING *			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8
MUSIC ELECTIVES (with Departmental Approval)			6
PERFORMANCE			
Practical Concentration: 2 credits per term. Completion of Concentration Final Examination			8
Basic Ensemble Training: minimum of 2 credits per year for 3 years** (one of Choral Ensemble, Orchestra, Wind Symphony or Concert Band during each term)			6
ARTS AND SCIENCE ELECTIVES			
Three full courses or the equivalent to include a) German b) European History			18
			96

Special Requirements:

Cumulative Grade Point Average: minimum 3.00
All HISTORY courses — mark of A or B in each.

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Theory.
**A maximum of 2 credits of Elective Ensemble may be substituted for 2 credits of Basic Ensemble Training, with Departmental approval.

B.Mus. WITH HONOURS IN THEORY

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
THEORY			
Physics and Psychophysics of Music	198-224A	3	
Tonal Theory & Analysis I	211-210A or B	3	
Tonal Theory & Analysis II	211-211A or B	3	
19th Century Analysis	211-327D	4	
20th Century Analysis	211-427D	4	
Advanced Harmony	211-523D	6	
Proseminar in Music Theory	211-529B	3	
Bibliography and Research Methods	214-490A	3	
Two of:			
Tonal Counterpoint	211-322D	6	
Modal Counterpoint	211-323D	6	
Fugue	211-522D	6	
			41
EAR TRAINING *			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8
HISTORY			
History of Music Theory	214-489A	3	
Music History, Literature or Performance Practice Elective		3	
			6
MUSIC ELECTIVES (with Departmental Approval)			12
PERFORMANCE			
Practical Concentration: 2 credits per term. Completion of Concentration Final Examination			8
Basic Ensemble Training: minimum of 2 credits per year for 3 years** (one of Choral Ensemble, Orchestra, Wind Symphony or Concert Band during each term)			6
ARTS AND SCIENCE ELECTIVES			
Three full courses or the equivalent – at least one must be a continuation course to the 300 level.			18
			99

Special Requirements:

Cumulative Grade Point Average: minimum 3.00
All THEORY courses — mark of A or B in each. 198-224A Physics and Psychophysics of Music — minimum grade of C

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Theory.
**A maximum of 2 credits of Elective Ensemble may be substituted for 2 credits of Basic Ensemble Training, with Departmental approval.

B.Mus. WITH HONOURS IN THEORY AND (***) OPTION

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
THEORY			
Tonal Theory & Analysis I	211-210A or B	3	
Tonal Theory & Analysis II	211-211A or B	3	
Tonal Counterpoint	211-322D	6	
19th Century Analysis	211-327D	4	
20th Century Analysis	211-427D	4	
Proseminar in Music Theory	211-529B	3	
Bibliography and Research Methods	214-490A	3	
One of:			
Modal Counterpoint	211-323D	6	
Fugue	211-522D	6	
Advanced Harmony	211-523D	6	
			32
EAR TRAINING *			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8
HISTORY			
History of Music Theory	214-489A	3	
Music History, Literature or Performance Practice Elective		3	
			6
PERFORMANCE			
Practical Concentration: 2 credits per term. Completion of Concentration Final Examination			8
Basic Ensemble Training: minimum of 2 credits per year for 3 years** (one of Choral Ensemble, Orchestra, Wind Symphony or Concert Band during each term)			6
OPTION			
Courses in (***) approved by the Department of Theory in consultation with the other department concerned.			36
			96

Special Requirements:

Cumulative Grade Point Average: minimum 3.00
Mark of A or B in all THEORY courses and OPTION courses.

(***) Options available in Computer Science, English, Linguistics, Mathematics, Philosophy and Psychology.

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Theory.
**A maximum of 2 credits of Elective Ensemble may be substituted for 2 credits of Basic Ensemble Training, with Departmental approval.

FACULTY PROGRAM

The Faculty Program in Music has been designed to accommodate those students who are either undecided about the area of music in which they wish to specialize, or who are interested in a pattern of specialization not provided in the established majors and honours programs, or who are interested in combining studies in music with studies in other disciplines. Students registered in the Faculty Program may, with the approval of a staff adviser, design their own programs around specific interests or develop programs with a broader base by incorporating courses from other disciplines.

BACHELOR OF MUSIC DEGREE (B.Mus.)

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
THEORY			
Tonal Theory & Analysis I	211-210A or B	3	
Tonal Theory & Analysis II	211-211A or B	3	
Middle & Late 19th Century Theory & Analysis	211-310A or B	3	
20th Century Theory & Analysis	211-311A or B	3	
			12
EAR TRAINING*			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8
MUSIC HISTORY, LITERATURE OR PERFORMANCE PRACTICE ELECTIVES			6
PERFORMANCE			
Practical Concentration: 2 credits per term. Completion of Concentration Final Examination			8
Basic Ensemble Training: minimum of 2 credits per year for 3 years (one of Choral Ensemble, Orchestra, Wind Symphony or Concert Band during each term)			6
****MUSIC ELECTIVES**			20
****FREE ELECTIVES:** a minimum of 18 credits must be in disciplines other than music and at least one full course must be a continuation to the 300 level.			30
			90

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Theory.

**To be selected in consultation with a staff adviser.

SPECIAL PREREQUISITE COURSES FOR SOUND RECORDING

Course Title	*Course No.*	*Course Credits*	*Total*
Faculty of Music			
Introductory Orchestration	211-260D	4	
Electronic Music	213-242D	6	
Introduction to Music Recording	213-300D	6	
Faculty of Science			
Fundamentals of Mathematics	189-112A	3	
Physics and Psychophysics of Music	198-224A	3	
Musical Acoustics	198-225B	3	
Faculty of Engineering			
Introduction to Electroacoustics I	304-232A	3	
Introduction to Electroacoustics II	304-339B	3	
			31

N.B. In order to be considered for admission to the Master of Music in Sound Recording, students must attain a minimum grade of B in all of the above courses and must have a B.Mus. degree with a minimum CGPA of 3.00.

6.2 *DEPARTMENT OF PERFORMANCE: Keyboard; Voice; Orchestral Instruments*

Performance Specialization is available in: Violin, Viola, Cello, Bass, Viola da gamba, Guitar, Percussion, Flute, Oboe, Clarinet, Saxophone, Bassoon, French Horn, Trumpet, Trombone, Tuba, Piano, Organ, Harpsichord, Harp, and Voice.

B.Mus. WITH A MAJOR IN PERFORMANCE (Keyboard, Guitar, Gamba)

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
PERFORMANCE			
Practical: Major (4 credits each term)			24
Basic Ensemble Training: Choral Ensemble during each term			6
Elective Ensembles			6
THEORY			
Tonal Theory & Analysis I	211-210A or B	3	
Tonal Theory & Analysis II	211-211A or B	3	
Middle & Late 19th Century Theory & Analysis	211-310A or B	3	
20th Century Theory & Analysis	211-311A or B	3	
			12
EAR TRAINING *			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8
MUSIC HISTORY, LITERATURE OR PERFORMANCE PRACTICE ELECTIVES			6
MUSIC ELECTIVES (see note below)			10
ARTS AND SCIENCE ELECTIVES			
Three full courses or the equivalent — at least one must be a continuation course to the 300 level.			18
			90

Music Electives for Harpsichord and Organ Majors

The following courses must be included in these Electives:

1.	Harpsichord:	211-272D	Continuo
		and 211-372D	Continuo
2.	Organ:	211-272D	Continuo

Special Requirements:

Students majoring in Performance must achieve at least a B in their major field in the Intermediate Examination and in each subsequent term.

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Performance.

B.Mus. WITH A MAJOR IN PERFORMANCE (Voice)

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
PERFORMANCE			
Practical: Major (4 credits each term)			24
Basic Ensemble Training: Choral Ensemble during each term			6
Elective Ensembles			6
THEORY			
Tonal Theory & Analysis I	211-210A or B	3	
Tonal Theory & Analysis II	211-211A or B	3	
Middle & Late 19th Century Theory & Analysis	211-310A or B	3	
20th Century Theory & Analysis	211-311A or B	3	
			12
EAR TRAINING*			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8
MUSIC HISTORY, LITERATURE OR PERFORMANCE PRACTICE ELECTIVES			6
MUSIC ELECTIVES			10
ARTS AND SCIENCE ELECTIVES			
Three full courses or the equivalent — at least one must be a continuation course to the 300 level.			18
			90

Special Requirements:

Students majoring in Performance must achieve at least a B in their major field in the Intermediate Examination and in each subsequent term.

At some point prior to graduation, the Voice Major must furnish evidence of having completed Italian 132-205D and German 129-202D or their equivalent. This language requirement may be fulfilled by appropriate CEGEP courses, or as part of the Arts and Science Continuation above, or by extra University courses.

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Performance.

B.Mus. WITH A MAJOR IN PERFORMANCE (Orchestral Instruments)

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
PERFORMANCE			
Practical: Major (4 credits each term)			24
Basic Ensemble Training: One of Orchestra, Wind Symphony or Concert Band during every term of enrolment as a full-time or part-time student			min. 6
PLUS an assigned small ensemble during every term of enrolment			6
THEORY			
Tonal Theory & Analysis I	211-210A or B	3	
Tonal Theory & Analysis II	211-211A or B	3	
Middle & Late 19th Century Theory & Analysis	211-310A or B	3	
20th Century Theory & Analysis	211-311A or B	3	
			12
EAR TRAINING*			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8
MUSIC HISTORY, LITERATURE OR PERFORMANCE PRACTICE ELECTIVES			6
MUSIC ELECTIVES			10
ARTS AND SCIENCE ELECTIVES			
Three full courses or the equivalent — at least one must be a continuation course to the 300 level.			18
			90

Special Requirements:

Students majoring in Performance must achieve at least a B in their major field in the Intermediate Examination and in each subsequent term.

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Performance.

B.Mus. WITH A MAJOR IN PERFORMANCE (Church Music)

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
PERFORMANCE			
Practical: Organ Major (4 credits each term)			24
Basic Ensemble Training: Choral Ensemble during each term			6
THEORY			
Tonal Theory & Analysis I	211-210A or B	3	
Tonal Theory & Analysis II	211-211A or B	3	
Middle & Late 19th Century Theory & Analysis	211-310A or B	3	
20th Century Theory & Analysis	211-311A or B	3	
Continuo	211-272D	2	
			14
EAR TRAINING*			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8
HISTORY			
Choral Literature	214-397A	3	
Church Music	214-399B	3	
			6
SCHOOL MUSIC			
Vocal Techniques	221-235A or B	3	
String Techniques	223-201A or B	3	
Brass Techniques	223-203A or B	3	
Choral Conducting I	221-315B	3	
Choral Conducting II	221-415A	3	
			15
ARTS AND SCIENCE ELECTIVES			
Must include 260-321B (History of Christian Liturgy) in the Faculty of Religious Study, and in all, the equivalent of three full courses — at least one of which must be a continuation course to the 300 level.			18
			91

Special Requirements:

Students majoring in Performance must achieve at least a B in their Intermediate Examination, and in each subsequent term. Students majoring in Church Music are not required to perform their examinations from memory.

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Performance.

B.Mus. WITH HONOURS IN PERFORMANCE (All Instruments and Voice)

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
PERFORMANCE			
Practical: Honours (4 credits each term)			24
Basic Ensemble Training:			
Orchestral Instrument: One of Orchestra, Wind Symphony or Concert Band PLUS an assigned small ensemble during every term of enrolment as a full-time or part-time student			min. 12
Other Instrument: Choral Ensemble during each term (6 credits) Elective Ensembles (6 credits)			
Twentieth Century Performance Practice *	215-428B		3
One Public Solo Recital			
THEORY			
Tonal Theory & Analysis I	211-210A or B	3	
Tonal Theory & Analysis II	211-211A or B	3	
19th Century Analysis	211-327D	4	
20th Century Analysis	211-427D	4	
			14
EAR TRAINING**			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
Solfege—Voice Students Only	212-431A	2	
			8 or 10
MUSIC HISTORY, LITERATURE OR PERFORMANCE PRACTICE ELECTIVES (see list below)			9
MUSIC ELECTIVES (with Departmental Approval)			6
ARTS AND SCIENCE ELECTIVES			
Three full courses or the equivalent — at least one must be a continuation course to the 300 level.			18
			94 or 96

* Harpsichord and viola da gamba students will substitute 215-382B (Performance Practice of Baroque Music) for 215-428B as the required performance practice course.

**Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Performance.

History, Literature and Performance Practice Electives

The following courses must be included in these Electives:

1.	Organ/Harpsichord:	214-395A	Keyboard Literature before 175(
2.	Piano:	214-396B	Keyboard Literature after 1750
3.	Voice:	214-387A	Opera Literature
		and 214-390B	Vocal Literature
4.	Orchestral Instruments:	214-389B	Orchestral Literature

Special Requirements:

1. Cumulative Grade Point Average of 3.00 or better.
2. Mark of A in practical subject during each term of enrolment.
3. At some point prior to graduation, the Honours Voice student must furnish evidence of having completed Italian 132-205D and German 129-202D or their equivalent. This language requirement may be fulfilled by appropriate CEGEP courses, or as part of the Arts and Science Continuation above, or by extra University courses.

MINOR PROGRAM IN JAZZ PERFORMANCE

Course Title	*Course No.*	*Course Credits*	*Total*
Jazz Improvisation I	240-213A	3	
Jazz Improvisation II	240-214B	3	
Jazz Improvisation III	240-313A	3	
Jazz Improvisation IV	240-314B	3	
Jazz Improvisation V	240-413A	3	
Jazz Improvisation VI	240-414B	3	
			18
Jazz Ensemble (3 years)	243-995A,B		min. 6
			24

Special Requirements:

Students in any B.Mus. program are eligible to audition for the Minor in Jazz Performance. Auditions are held at the beginning of the Fall term.

A student must obtain an A in Jazz Improvisation IV in order to proceed to the final year and must maintain a minimum of B in all other Jazz courses to receive the degree designation.

LICENTIATE IN MUSIC (L.Mus.) (All Instruments and Voice)

Course Title	*Course No.*	*Course Credits*	*Total*
PERFORMANCE			
Practical: Major (8 credits each term for 6 terms)			48
Basic Ensemble Training:			min. 12
Orchestral Instrument: One of Orchestra, Wind Symphony or Concert Band PLUS an assigned small ensemble during every term of enrolment as a full-time or part-time student			
Other Instrument: Choral Ensemble during each term (6 credits) Elective Ensembles (6 credits)			
THEORY			
Melody and Counterpoint	211-110A or B	3	
Elementary Harmony and Analysis	211-111A or B	3	
Tonal Theory & Analysis I	211-210A or B	3	
Tonal Theory & Analysis II	211-211A or B	3	
			12

EAR TRAINING*

Ear Training (Fixed Doh)	212-129A or B	2	
Ear Training (Fixed Doh)	212-131A or B	2	
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
			8

HISTORY

Music History Survey	214-184A	3	
Music History Survey	214-185B	3	
			6

MUSIC ELECTIVES 4

90

Special Requirements:

Admission to this program requires an audition in the major field.

Continuation in the program requires that a grade of B be maintained in the major field. Candidates must take the Intermediate Examination at the end of their first year of study and the Semi-Final and Final Examinations in each of the next two years if they hope to complete the program in the normal length of time.

N.B. Voice Students: In addition to the above courses, candidates in voice must take German Diction 242-112A or B and Italian Diction 242-111A or B (2 credits each) for a total of 94 credits.

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Performance.

CONCERT DIPLOMA (All Instruments and Voice)

Course Title	*Course No.*	*Course Credits*	*Total*
PERFORMANCE			
Practical: Graduate Major (8 credits each term for 4 terms)			32
Basic Ensemble Training:			min. 8
Orchestral Instrument: One of Orchestra, Wind Symphony or Concert Band			
PLUS an assigned small ensemble during every term of enrolment as a full-time or part-time student			
Other Instrument: Elective Ensembles, to be approved by the Department.*			
THEORY			
Middle & Late 19th Century Theory & Analysis	211-310A or B	3	
20th Century Theory & Analysis	211-311A or B	3	
			6
EAR TRAINING**			
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
Solfege - Voice Students Only	212-431A	2	
			4 or 6
MUSIC HISTORY, LITERATURE OR PERFORMANCE PRACTICE ELECTIVES			6
MUSIC ELECTIVES			4
			60 or 62

Special Requirements:

Admission is by audition following successful completion of the L.Mus. or its equivalent. Continuation in the program requires a mark of A in the major field.

Candidates in voice who have not taken the courses in German and Italian Diction specified in the L.Mus. program must add them to the above requirements.

*Singers, guitarists and keyboard players are required to present three recitals while only two are demanded of orchestral players. This third recital may be counted as a substitute for 2 credits of ensemble.

For concerto requirements, refer to page 50.

N.B. Courses taken as credit towards a B.Mus. or L.Mus. may not applied to the Concert Diploma requirements except for the required courses in Theory and Ear Training.

**Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Performance.

6.3 DEPARTMENT OF SCHOOL MUSIC

B.Mus. WITH A MAJOR IN SCHOOL MUSIC

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
SCHOOL MUSIC			
Pro-Seminar in School Music	222-402D	6	
Vocal Techniques	221-235A or B	3	
String Techniques	223-201A or B	3	
Woodwind Techniques	223-202A or B	3	
Brass Techniques	223-203A or B	3	
Percussion Techniques	223-204A or B	3	
			21
One of:			
Choral Conducting I	221-315B	3	
Instrumental Conducting I	223-315B	3	
			3
Two of:			
Choral Conducting I	221-315B	3	
Choral Conducting II	221-415A	3	
Psychology of Music	222-205A	3	
The Music Appreciation Class: Philosophy and Techniques	222-315B	3	
Class Composition: Philosophy and Techniques	222-340B	3	
Kodály: Philosophy and Techniques	222-351B	3	
Dalcroze: Philosophy and Techniques	222-352B	3	
Orff: Philosophy and Techniques	222-353B	3	
Suzuki: Philosophy and Techniques	222-355B	3	
String Techniques	223-301B	3	
Instrumental Conducting I	223-315B	3	
Piano Techniques	223-358B	3	
Instrumental Conducting II	223-415A	3	
			6

THEORY

Tonal Theory and Analysis I	211-210A or B	3	
Tonal Theory and Analysis II	211-211A or B	3	
Middle & Late 19th Century Theory & Analysis	211-310A or B	3	
20th Century Theory & Analysis	211-311A or B	3	
Choral and Keyboard Arranging	211-461A	2	
Instrumental Arranging	211-462B	2	
			16

EAR TRAINING*

Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8

HISTORY

Two Music History or Literature courses (with Departmental Approval)	6

PERFORMANCE

Practical Concentration: 2 credits per term. Completion of Concentration Final Examination	8
Basic Ensemble Training: 2 credits per year for 3 years (one of Choral Ensemble, Orchestra, Wind Symphony or Concert Band)	6

ARTS AND SCIENCE ELECTIVES

Three full courses or the equivalent — at least one must be a continuation course to the 300 level.	18
	92

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of School Music.

B.Mus. WITH HONOURS IN SCHOOL MUSIC

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
SCHOOL MUSIC			
Pro-Seminar in School Music	222-402D	6	
Vocal Techniques	221-235A or B	3	
String Techniques	223-201A or B	3	
Woodwind Techniques	223-202A or B	3	
Brass Techniques	223-203A or B	3	
Percussion Techniques	223-204A or B	3	
			21
One of:			
Choral Conducting I	221-315B	3	
Instrumental Conducting I	223-315B	3	
			3
Two of:			
Choral Conducting I	221-315B	3	
Choral Conducting II	221-415A	3	
Psychology of Music	222-205A	3	
The Music Appreciation Class: Philosophy and Techniques	222-315B	3	
Class Composition: Philosophy and Techniques	222-340B	3	
Kodály: Philosophy and Techniques	222-351B	3	
Dalcroze: Philosophy and Techniques	222-352B	3	
Orff: Philosophy and Techniques	222-353B	3	
Suzuki: Philosophy and Techniques	222-355B	3	
String Techniques	223-301B	3	
Instrumental Conducting I	223-315B	3	
Piano Techniques	223-358B	3	
Instrumental Conducting II	223-415A	3	
			6
Six credits from the following:			
Selected Topics in School Music	222-403A or B,-404A or B	3 — 3	
Special Project	222-475D	3	
Special Project	222-476D	6	
			6

THEORY

Tonal Theory and Analysis I	211-210A or B	3	
Tonal Theory and Analysis II	211-211A or B	3	
Middle & Late 19th Century Theory & Analysis	211-310A or B	3	
20th Century Theory & Analysis	211-311A or B	3	
Choral and Keyboard Arranging	211-461A	2	
Instrumental Arranging	211-462B	2	
			16

EAR TRAINING*

Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8

HISTORY

Two Music History or Literature courses (with Departmental Approval)	6

PERFORMANCE

Practical Concentration: 2 credits per term. Completion of Concentration Final Examination	8
Basic Ensemble Training: 2 credits per year for 3 years (one of Choral Ensemble, Orchestra, Wind Symphony or Concert Band)	6

ARTS AND SCIENCE ELECTIVES

Three full courses or the equivalent — at least one must be a continuation course to the 300 level.	18
	98

Special Requirements:

Cumulative Grade Point Average: minimum 3.00
Mark of A in 222-402D Pro-Seminar in School Music.
Mark of A or B in all other SCHOOL MUSIC courses.

*Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of School Music.

6.4 DESIGNATED MAJOR PROGRAM

B.Mus. WITH A DESIGNATED MAJOR

(The courses comprising the Major field must be approved by the departments concerned prior to registration in the program.)

For prerequisite requirements for this program, see Section 3.2 (Non-Québec Applicants)

Course Title	*Course No.*	*Course Credits*	*Total*
DESIGNATED MAJOR AREA*			32
THEORY			
Tonal Theory and Analysis I	211-210A or B	3	
Tonal Theory and Analysis II	211-211A or B	3	
Middle & Late 19th Century Theory & Analysis	211-310A or B	3	
20th Century Theory & Analysis	211-311A or B	3	
			12
EAR TRAINING**			
Ear Training (Fixed Doh)	212-229A or B	2	
Ear Training (Fixed Doh)	212-231A or B	2	
Ear Training (Fixed Doh)	212-329A or B	2	
Ear Training (Fixed Doh)	212-331A or B	2	
			8
MUSIC HISTORY, LITERATURE OR PERFORMANCE PRACTICE ELECTIVES			6
PERFORMANCE			
Practical Concentration: 2 credits per term. Completion of Concentration Final Examination			8
Basic Ensemble Training: minimum of 2 credits per year for 3 years (one of Choral Ensemble, Orchestra, Wind Symphony or Concert Band during each term)			6
ARTS AND SCIENCE ELECTIVES			
Three full courses or the equivalent — at least one must be a continuation course to the 300 level.			18
			90

*The courses comprising the major field are selected in consultation with a faculty adviser. The complete program for a student must be approved by the relevant department and by Faculty Council. The core courses represent the minimum requirement in the areas of Theory, Ear Training, History, Practical and Ensemble. More advanced level courses may be substituted in these areas if desired. When appropriate, certain of the core courses may comprise part of the Designated Major Area, in which case additional electives must be taken to make up the required 90 credits.

**Students wishing to register for Ear Training (Movable Doh) should contact the Chairman, Department of Theory.

7 COURSES

7.1 Theory
7.2 Ear Training
7.3 Composition
7.4 History and Literature
7.5 Sound Recording
7.6 School Music
7.7 Jazz Studies, Conducting, and Diction
7.8 Ensembles
7.9 Performance Courses
7.10 Practical Subjects

7.1 THEORY (211-)

211-110A,B MELODY AND COUNTERPOINT. (3 credits; *Prerequisite:* McGill Conservatory Theory Secondary V or its equivalent; *Corequisites:* 212-128 or 212-129 AND 211-170; 4 hours). Analysis of melodies from various eras and cultures, and of two-part counterpoint, including styles and techniques of 20th Century counterpoint. Written exercises in melody and two-part counterpoint will be required. Notation and tuning and temperament.
Professor Donald Patriquin (Co-ordinator) and Staff

211-111A,B ELEMENTARY HARMONY AND ANALYSIS. (3 credits; *Prerequisite:* 211-110; *Corequisites:* 212-130 or 212-131 AND 211-170; 4 hours). This course will cover diatonic chords, harmonic progression, the concept and practice of tonality, simple modulation, seventh chords and secondary dominants. Small forms from c. 1700 to the early 19th Century will be analyzed. Written four-part exercises will be required.
Professor Donald Patriquin (Co-ordinator) and Staff

211-170A,B KEYBOARD PROFICIENCY I. (1 credit; *Prerequisite:* none; 1 hour). Development of basic piano skills, sight reading, clefs, transposition, simple keyboard harmony.
TBA (Co-ordinator) and Staff

211-171A,B KEYBOARD PROFICIENCY II. (1 credit; *Prerequisite:* 211-170; 1 hour). Continuation of 211-170, elementary score reading, figured bass.
TBA (Co-ordinator) and Staff

211-210A,B TONAL THEORY AND ANALYSIS I. (3 credits; *Prerequisites:* 211-110 and 211-111; *Corequisites:* 212-228 or 212-229 AND 211-170; 3 hours). Compositional resources of early and mid-18th Century music. Thorough review of elementary harmonic procedure. Introduction to chromatic alteration and linear chords. Introduction to analysis of imitative and invertible counterpoint. Analysis of common forms of the period c. 1700-1770, including principal Baroque forms, but not including the Classical sonata.
Professor Janet Schmalfeldt (Co-ordinator) and Staff

211-211A,B TONAL THEORY AND ANALYSIS II. (3 credits; *Prerequisite:* 211-210; *Corequisites:* 212-230 or 212-231 AND 211-171; 3 hours). Compositional resources of late 18th and early 19th Century music. Analysis of forms common to the period c. 1770-1830, including Classical sonata forms in several media. Writing of short pieces for keyboard, piano and voice, string quartet.
Professor Janet Schmalfeldt (Co-ordinator) and Staff

211-260D INTRODUCTORY ORCHESTRATION. (4 credits; *Prerequisite:* 211-111 or the equivalent; 2 hours lecture, 1 hour demonstration). A study of the instruments of the orchestra and their repertoire. Works for small ensembles (string quartet, woodwind quintet, brass quintet, percussion ensemble) will be analyzed from the point of view of instrumental writing. A number of arrangements will be made for these ensembles, and then read by student ensembles.
Professor Donald Steven

211-272D CONTINUO. (2 credits; *Prerequisites:* 211-111 AND permission of the instructor; enrolment limited to 6; 1 hour). An historically-oriented study of the principles of figured-bass. The student will realize at sight elementary bass patterns. Standard idioms from historical treatises will be introduced.

Unless otherwise indicated the following courses are prerequisites to 300-, 400- and 500- level theory courses:. 211-211 or 213-240 AND 212-230 or 212-231 AND 211-171.

211-310A,B MIDDLE AND LATE 19th CENTURY THEORY AND ANALYSIS. (3 credits; 3 hours). Expanded harmonic resources of the late 19th Century (e.g., foreign modulation, chromatic harmony). Analysis of characteristic small and large forms. Development of writing and analytical skills with a goal toward perceiving how levels of musical structure interact.
Professor John Rea (Co-ordinator) and Staff

211-311A,B 20th CENTURY THEORY AND ANALYSIS. (3 credits; *Prerequisite:* 211-310; 3 hours). Exploration of 20th Century systems of pitch organization and attitudes toward counterpoint (e.g., polytonality, modal systems, neo-classical tonality, serialism, linear counterpoint, etc.). Examination of the relationship of these systems to earlier practices. Development of written and analytical skills for the purpose of gaining insight into 20th Century principles and techniques.
Professor John Rea (Co-ordinator) and Staff

211-322D TONAL COUNTERPOINT. (6 credits; 2 hours). An examination of the contrapuntal technique of J.S. Bach through the detailed technical analysis of his work and the writing of examples in three parts.
Professor Kelsey Jones

211-323D MODAL COUNTERPOINT. (6 credits; 2 hours). An examination of the polyphonic technique of the Renaissance period through the writing of examples in three voices and the detailed analysis of the works of Palestrina and others.
Professor Kelsey Jones

211-327D 19th CENTURY ANALYSIS. (4 credits; 2 hours). The analysis of representative works of the 19th Century, selected from various genres of the period encompassed by late Beethoven, Schubert, and Berlioz to Mahler and Wolf. Some preliminary work in Schenkerian analysis will be undertaken.
Professors William Caplin and Janet Schmalfeldt

- **211-360D ORCHESTRATION.** (4 credits; *Additional prerequisite:* 211-260; 2 hours). The study and analysis of the orchestral scoring of Beethoven, Schumann, Mendelssohn and Brahms.

211-361D COMMERCIAL ARRANGING. (4 credits; *Additional prerequisite:* permission of the instructor; 2 hours).
Mr. Al Baculis

211-372D CONTINUO. (2 credits; *Prerequisites:* 211-272 AND permission of the instructor; enrolment limited to 4; 1 hour). A study of 17th and 18th Century styles of figured-bass accompaniment as revealed in contemporary sources. The emphasis will be on the realization at the keyboard of representative works using original sources.

211-427D 20th CENTURY ANALYSIS. (4 credits; 2 hours). Analysis of a cross-section of 20th Century music from Debussy and Mahler to the present to: 1) provide the student with analytical tools necessary for the understanding of pitch organization, form, rhythm, timbre, etc., in individual works; 2) introduce the student to salient theoretical approaches pertaining to 20th Century music.
Professors Bo Alphonce and Brian Cherney

211-460D ORCHESTRATION. (4 credits; *Additional prerequisites:* 211-260 AND 213-240; 2 hours). A short survey of the history of instrumentation and orchestration. Instrumentation/orchestration workshop, approximately twice per term, to test timbres, dynamics, idiomatic writings for, and combinations of, available instruments. Coordination with various Electronic Music courses, especially with regard to live-electronics. Analyses of the orchestration techniques used by various composers.
Professor Bengt Hambraeus

211-461A CHORAL AND KEYBOARD ARRANGING. (2 credits; *Prerequisite:* 211-311 OR permission of the instructor; 2 hours). An introduction to arranging techniques, and their application in settings for keyboard and choral resources. Materials include folksongs, carols, popular and originally composed melodies. The emphasis is on creative arrangement as opposed to transcription.
Professor Donald Patriquin

211-462B INSTRUMENTAL ARRANGING. (2 credits; *Prerequisites:* 211-461 AND 223-201, 223-202, 223-203 and 223-204 OR permission of the instructor; 2 hours). The application of the general techniques studied in 211-461 to woodwind, brass and string ensembles, to various of which may be added keyboard, chorus, and percussion. Major assignments are prepared and recorded in workshops, and are subsequently discussed in class.
Professor Donald Patriquin

- **211-473A SPECIAL STUDIES IN 20th CENTURY THEORY & COMPOSITION.** (3 credits; *Prerequisite:* permission of the instructor; limited enrolment).

- **211-474B SPECIAL STUDIES IN 20th CENTURY THEORY & COMPOSITION.** (3 credits; *Prerequisite:* permission of the instructor; limited enrolment).

211-475D, 211-476D SPECIAL PROJECT. (3, 6 credits). For details contact the Department of Theory.

211-522D FUGUE. (6 credits; *Prerequisite:* 211-322; preference given to students in honours programs; 3 hours). An examination of the technique of fugue as exemplified in J.S. Bach through the writing of fugues in four parts and the detailed analysis of the fugues of Bach. Fugues of 19th and 20th Century composers will be examined as well.
Professor Kelsey Jones

211-523D ADVANCED HARMONY. (6 credits; *Prerequisites:* 211-322 and 211-327 OR 213-240; 3 hours). An investigation of pitch systems from the late 19th Century to the present with special reference to Fauré, Mahler, Berg, Scriabin, Delius and Messiaen. The students' work will consist equally of analysis and short written exercises.
Professor Bruce Mather

- **211-528A SCHENKERIAN TECHNIQUES.** (3 credits; *Prerequisite:* 211-311 OR 211-327 OR 213-240 OR permission of the instructor; limited enrolment with preference given to students in Honours Theory; 3 hours). Introduction to the principles and techniques of Schenkerian analysis. Interpretation and construction of reductive graphs through the analysis of a diversified repertoire of tonal works. Comparison with traditional methods of harmonic analysis (Rameau, Riemann, etc.).
Professor Janet Schmalfeldt

211-529B PROSEMINAR IN MUSIC THEORY. (3 credits; *Prerequisite:* 211-327; *Corequisite:* 211-427; limited to Honours Theory students; 3 hours). A survey of various topics in contemporary music theory, including computer appli-

cations, experimental aesthetics, indeterminacy, information theory, linguistics, microtonality, psycho-acoustics, and rhythmic theory.
Professor Paul Pedersen

7.2 EAR TRAINING (212-)

A minimum mark of "C" (55%) will be required in both Solfege and Dictation in order to receive a continuation pass in any ear training course.

- **212-128A,B EAR TRAINING (Movable Doh).**

212-129A,B EAR TRAINING (Fixed Doh). (2 credits; *Prerequisite:* McGill Conservatory Ear Training Secondary V or its equivalent; *Corequisite:* 211-110; 2 hours). Dictation and sightsinging of intervals, triads, and pentatonic, modal and tonal melodies. Melodies employ the treble and bass clef, simple and compound time signatures, simple chromaticism, and key signatures up to two sharps and two flats generally. Aural identification of mode and form of dictated materials.
Professor Donald Patriquin (Co-ordinator) and Staff

- **212-130A,B EAR TRAINING (Movable Doh).**

212-131A,B EAR TRAINING (Fixed Doh). (2 credits; Prerequisite: 212-128 or 212-129; *Corequisite:* 211-111; 2 hours). Materials in addition to those described in 212-128/212-129 will include compound intervals, triads in inversion, diatonic seventh chords, simple atonal materials, and will involve alto clef, simple modulation, syncopation, and key signatures up to four sharps and four flats generally.
Professor Donald Patriquin (Co-ordinator) and Staff

- **212-228A,B EAR TRAINING (Movable Doh).**

212-229A,B EAR TRAINING (Fixed Doh). (2 credits; *Prerequisite:* 212-130 or 212-131; *Corequisite:* 211-210; 2 hours). Sightsinging of melodies from all periods involving easy modulations; two-part vocal compositions. Mixed clefs - treble, alto, tenor, and bass. Aural analysis. Dictation: modulating melodies, non-modulating two-part counterpoint, isolated chords in four-part configuration (all triads in root position and inversions), soprano and bass lines of four-part chorale fragments.
TBA (Co-ordinator) and Staff

- **212-230A,B EAR TRAINING (Movable Doh).**

212-231A,B EAR TRAINING (Fixed Doh). (2 credits; *Prerequisite:* 212-228 or 212-229; *Corequisite:* 211-210 or 211-211; 2 hours). Sightsinging of melodies involving modulations to all related keys; two- and three-part vocal compositions; simple atonal melodies. Mixed clefs - treble, soprano, alto, tenor, bass. Dictation: modulating melodies, two-part structures, short atonal melodies, isolated chords and easy chorale fragments in four-parts (using triads, Mm7 and DD7 in root position and inversions.)
TBA (Co-ordinator) and Staff

- **212-328A,B EAR TRAINING (Movable Doh).**

212-329A,B EAR TRAINING (Fixed Doh). (2 credits; *Prerequisites:* 212-230 or 212-231 AND 211-211; 2 hours). Sightsinging: tonal exercises of greater complexity; atonal melodies. Mixed clefs — treble, soprano, alto, tenor, bass. Advanced aural analysis. Dictation: modulating melodies with moderately complex rhythms, two-part structures, isolated chords in all positions and four-part configurations, four-part chorale fragments and unrelated tonal chord progressions.
Professor Luba Zuk (Co-ordinator) and Staff

- **212-330A,B EAR TRAINING (Movable Doh).**

212-331A,B EAR TRAINING (Fixed Doh). (2 credits; *Prerequisites:* 212-328 or 212-329 AND 211-211; 2 hours). Sightsinging to include melodies with modulations to remote keys and complex atonal melodies; emphasis on 20th Century examples. Dictation: melodies involving modulations to remote keys, two-part counterpoint, atonal structures; isolated chords and four-part chorale excerpts involving all 7ths and augmented 6th chords; two-part rhythmic passages in all meters.
Professor Luba Zuk (Co-ordinator) and Staff

212-431A SOLFEGE (Fixed Doh). (2 credits; *Prerequisite:* 212-331; 2 hours). Further study of difficult solfege exercises. Readings of works of advanced rhythmic and melodic complexity, with emphasis on the vocal literature of the 20th Century.
Mrs. Pierrette Mather

212-432B DICTATION. (2 credits; *Prerequisite:* 212-331; 2 hours). Dictation of one- and two-part atonal melodies, as well as harmonic dictation, all derived from 20th Century literature.
Mrs. Pierrette Mather

7.3 COMPOSITION (213-)

213-240D TONAL COMPOSITION. (6 credits; *Prerequisites:* 211-110 and 211-111 OR their equivalent; *Corequisites:* 212-229 and 212-231 AND 211-170 and 211-171; open only to students in Composition; 3 hours). A writing course based on the stylistic concepts and resources of European music - 1770-1850 — and designed to develop control of factors such as phrase structure, melodic shape, rhythm, linear continuity, economy of means, notation, and basic contrapuntal procedures. There will be extensive and detailed analysis of characteristic forms.
Professor Donald Steven

213-242D ELECTRONIC MUSIC. (6 credits; *Prerequisite:* none; enrolment limited to 12; not open to major and honours students in Composition; 3 hours lecture plus 3 hours studio time).

Providing space is available, students in other faculties may enrol for this course with the permission of the instructor.

Studies in electro-acoustic musics. Some areas covered will include concrete music, acoustics and psycho-acoustics, soundscaping, pure electronic music, electronic extensions for real-time performance and remote recording.

Note: Students who have successfully completed 213-242 and wish to continue their studies in electronic music may register for 213-341 and 213-342 with the permission of the instructor.

213-245D COMPOSITION. (3 credits; *Prerequisites:* 211-110 and 211-111; *Corequisites:* 212-229 and 212-231 AND 211-170 and 211-171; open only to students in Composition; 1 hour). 20th Century techniques and approaches. Basic dimensions such as pitch, rhythm and timbre, and their interrelationship at all structural levels. Notation and score preparation. Performance practice. Analysis of selected 20th Century scores. Writing of short pieces for solo instruments and small ensembles, including voice.
Professor Bruce Mather

213-340D COMPOSITION. (6 credits; *Prerequisites:* 213-240 AND 213-245 with "B" standing in each; *Corequisites:* 212-329 and 212-331; 2 hours). Free composition.
Staff

213-341A ELECTRONIC MUSIC. (3 credits; *Prerequisite:* 213-240 OR permission of the instructor; limited enrolment; restricted to major and honours students in Composition; 3 hours lecture-demonstration and 3 hours studio time). Recording techniques. Splicing. Primary waveshapes. Mixing, ring modulation, filtering; developing electronic materials: loops, multitracking, reverse playing, speed variation. Notational problems. Spatial considerations: speakers, placement, acoustics, musique concrète. Purely electronic sources. Music for tape, instruments and tape, voice and tape. Analysis and listening of works from concrete and electronic schools.
Professor Alcides Lanza

213-342B ELECTRONIC MUSIC. (3 credits; *Prerequisite:* 213-341; limited enrolment; 3 hours lecture-demonstration and 3 hours studio time). Analysis and listening of tape compositions from the international repertoire. Notation of electronic scores. Modulation techniques; voltage control; synthesizers. Introduction to live electronics and mixed media. Tape recorders in live performance. Synchronization of tapes with instruments and with visual aspects.
Professor Alcides Lanza

213-440D COMPOSITION. (6 credits; *Prerequisite:* 213-340; 2 hours). Free composition.
Staff

213-441D SPECIAL PROJECTS IN COMPOSITION. (6 credits; *Prerequisite:* 213-440; 2 hours).
Staff

7.4 HISTORY AND LITERATURE (214-, 215-)

214-184A HISTORY SURVEY (MEDIAEVAL, RENAISSANCE, AND BAROQUE). (3 credits; *Corequisites:* 211-110 AND 212-128 or 212-129 OR permission of the instructor; 3 hours). Representative works from the Carolingian Renaissance to 1750 and their relation to the social and cultural milieu. Basic reference works. Developments in notation, instruments, and performance practice.
Professor Paul Helmer

214-185B HISTORY SURVEY (CLASSICAL, ROMANTIC, AND 20th CENTURY). (3 credits; *Corequisites:* 211-111 AND 212-130 or 212-131 OR permission of the instructor; 3 hours). An historical and stylistic investigation of music and musical life from circa 1750 to the present, i.e., the transition to the Classical period, the period of C.P.E. Bach and the Mannheim, Berlin, and Viennese symphonists, to recent developments, including electronic and computer applications.
Professor Bruce Minorgan

Unless otherwise indicated the following courses are prerequisites to 300- and 400- level history courses: 214-184 AND 214-185 AND 211-211 or 213-240 AND 212-230 or 212-231.

214-380B MEDIAEVAL MUSIC. (3 credits; *Corequisites:* 211-210 AND 212-228 or 212-229; 3 hours). The mediaeval style – an intensive study of one or more selected topics from the repertoire. Possible subjects include liturgical chant, Notre Dame, the mediaeval motet, secular developments, and instrumental literature.
Professor Paul Helmer

- **214-381A RENAISSANCE MUSIC.** (3 credits; *Corequisites:* 211-210 AND 212-228 or 212-229; 3 hours). Sacred and secular musical genres of the 15th and 16th centuries. Various phases of imitative practice, *cantus firmus* and parody techniques. The emergence of homophonic textures in peripheral areas of the repertoire. Selected problems in the fields of theory, bibliography and aesthetics.
Professor Christopher Reynolds

214-382A BAROQUE MUSIC. (3 credits; 3 hours). A detailed examination of several selected areas of Baroque music. Topics will be drawn from different geographical regions (e.g., Italy, France, Germany, etc.) and encompass church, chamber and theatre music, as well as performance practices. Each topic will be related to general musical developments of the period.
Professor Mary Cyr

- **214-383A CLASSICAL MUSIC.** (3 credits; 3 hours). The period covered will be from approximately 1740-1828, from the schools of the Italian keyboard composers, *opera buffa* and *seria,* and composers centered at Mannheim, Paris, Lon-

don, Berlin and Vienna, through the Viennese Classic period of Haydn, Mozart and Beethoven, to the death of Schubert.
Professor Michelle Fillion

214-384B ROMANTIC MUSIC. (3 credits; restricted to major and honours students in History; 3 hours). The Romantic style as traced by an analysis of works by the major composers of *Lied*, symphony, symphonic poem, chamber music, and opera.
Professor Michelle Fillion

- **214-385B TWENTIETH CENTURY MUSIC.** (3 credits; 3 hours). An examination of various streams of music in the 20th Century, from turn-of-the-century developments in Europe to post-1945 phenomena such as serialism, electronic media, and music theatre. Representative works by major innovators and thinkers such as Debussy, Schoenberg, Ives and Cage will be analyzed and discussed.
Professor Brian Cherney

214-386A CHAMBER MUSIC LITERATURE. (3 credits; 3 hours). The course will concentrate on the forms and media for chamber ensembles during the 18th, 19th and 20th centuries: accompanied sonatas, duos, trios, quartets, quintets, sextets, divertimenti, and works for small chamber orchestra. Major works of the most representative composers will be discussed.

- **214-387A OPERA LITERATURE.** (3 credits; 3 hours). Selected research topics in opera history, production and sociology.

214-389B ORCHESTRAL LITERATURE. (3 credits; 3 hours). A study of the literature for orchestra alone, composed since the early 18th Century. The material will be divided as follows: 1) orchestral music to the time of Beethoven; 2) orchestral music from 1800 to 1860; 3) orchestral music from 1860 to 1900; 4) orchestral music of the 20th Century.

- **214-390B VOCAL LITERATURE.** (3 credits; 3 hours). Forms, idioms and styles characteristic of solo and chamber song in Western art music. Emphasis will be on the literature available in central Europe, the British Isles and North America from the 16th through the 20th centuries.
Professor Michelle Fillion

- **214-391A CANADIAN MUSIC.** (3 credits; 3 hours). A survey of music in Canada from the 16th Century to the present. Current musical organizations and institutions, and contemporary Canadian music will be stressed. Time permitting, brief reference will be made to the folk music of indigenous and immigrant groups.
Professor Bruce Minorgan

- **214-393B HISTORY OF JAZZ.** (3 credits; *Prerequisite for non-Faculty of Music students:* 210-211 Introduction to the Art of Music OR permission of the instructor; 3 hours). A study of the development of jazz from its origin in the late 19th Century in America to the present day. Subjects such as ragtime, blues, the Twenties, big-band, swing, bebop, cool jazz, third stream, hard bop and free jazz will be considered.

- **214-394A SPECIAL TOPIC SEMINAR.** (3 credits; 3 hours).

- **214-395A KEYBOARD LITERATURE BEFORE 1750.** (3 credits; 3 hours). The solo repertoire for organ, harpsichord, and clavichord from 1400 to 1750: intabulation, *cantus firmus* treatment, indigenous keyboard genres, German organ literature, French harpsichord repertoire.
Professor Paul Hemer

214-396B KEYBOARD LITERATURE AFTER 1750. (3 credits; 3 hours). The solo repertoire for keyboard instruments from 1750 to the present: the development of an indigenous pianoforte literature, keyboard sonatas, character pieces, retrospective and progressive tendencies in organ music, 20th Century literature.
Professor Paul Helmer

214-397A CHORAL LITERATURE. (3 credits; 3 hours). The development of sacred and secular choral music from the Middle Ages to the present. Selected liturgical and secular works will be included; the Mass, the cantata, the oratorio and other genres. Form and stylistic considerations will be examined in representative choral works.
Professor Donald Mackey

- **214-398A WIND ENSEMBLE LITERATURE.** (3 credits; 3 hours). The development of music for mixed ensembles of wind instruments from the Middle Ages to the present day. Special emphasis will be given to music for wind chamber ensembles and band literature. The development of form and technique in wind music will be reviewed through the study of representative compositions for various combinations of wind instruments.

- **214-399B CHURCH MUSIC.** (3 credits; *Additional prerequisite:* 214-397 or permission of the instructor; 3 hours). Problems and issues of music in the church: hymnology, the history and role of music in different liturgies, musical and theological issues in the selection of church music, criteria for the adequate performance of hymns and other music in church services.
Professor Donald Mackey

214-475D, 214-476D SPECIAL PROJECT. (3,6 credits). For details contact the Department of Theory.

214-489A HISTORY OF MUSIC THEORY. (3 credits; 3 hours). A survey of theoretical thought from the Middle Ages to c. 1900 as seen through selected writings of the theorists themselves. Theory in the pre-tonal era will be stressed. Major developments will be examined in some detail (e.g., modal theory, tuning and temperament, sonata form, etc.).
Professor Bruce Minorgan

214-490A BIBLIOGRAPHY AND RESEARCH METHODS. (3 credits; 3 hours). An introduction to basic historical reference and research tools. Bio- and bio-bibliographical dictionaries, histories of music, music and music literature bibliographies, collected editions, monuments of music, library catalogues, thematic catalogues, and reference indices will be studied. An introduction to the philosophy of history and the methodology of musical research, to include materials relevant to the areas of performance and theory.
This course is available as a music elective but not as a history, literature or performance practice elective.
Professor Michelle Fillion

214-491D PALEOGRAPHY. (3 credits; restricted to U3 honours students in History; 1 hour). The theory and practice of musical transcription for the period 1100 to 1600. Black modal notation, Franconian notation, French and Italian Ars Nova notation, Mannerism, white mensural notation, proportions, and lute and keyboard tablatures will be studied.
Professor Paul Helmer

- **214-496B HONOURS TUTORIAL.** (3 credits).
Staff

- **215-381A PERFORMANCE PRACTICE OF MEDIAEVAL AND RENAISSANCE MUSIC.** (3 credits; 3 hours). Instrumentation, scoring, notation, rhythmic and metrical accentuation, performance medium, ornamentation and diminution, tempo and the tactus, and improvisatory practices. Selected repertoires will be investigated and modern editions and recordings of these repertoires evaluated (e.g., Machaut's secular songs, Byrd's instrumental fantasias, etc.). Editorial techniques will be analyzed.
Professor Paul Helmer

- **215-382B PERFORMANCE PRACTICE OF BAROQUE MUSIC.** (3 credits; 3 hours). Instrumentation, *basso continuo,* notational practices, articulation, Italian ornamentation in slow movements, French ornamentation, inégalité will be amongst the topics studied. Discussion and evaluation of modern editions, class performances, and recordings.
Professor Mary Cyr

215-383A PERFORMANCE PRACTICE OF CLASSICAL MUSIC. (3 credits; 3 hours). The performance tradition from 1760 to 1810 based on the treatises, journals, critical and aesthetic writings of the time: ornamentation, tempo, rhythmic conventions, dynamics, instrumentation, make-up and balance of orchestras.
Professor Paul Helmer

215-428B TWENTIETH CENTURY PERFORMANCE PRACTICE. (3 credits; *Corequisite:* 211-427; restricted to honours students in Performance; 3 hours). Performance problems in contemporary music (notation of pitch and duration, interpretation of graphic scores, improvisation, aesthetics, etc.). The performance area of individual students will determine the direction of the course.
Professor Bengt Hambraeus

7.5 SOUND RECORDING (Qualifying courses)

213-300D INTRODUCTION TO MUSIC RECORDING. (6 credits; *Prerequisite:* 213-242 OR 213-341; *Prerequisites or corequisites:* 211-211 and permission of the instructor; 3 hours lecture plus 4 hours studio time). The theory and practice of music recording including a study of recording environments, equipment and studio techniques. The analysis of music scores and recordings with respect to the requirements and possibilities of the recording studio. Studio work will include recording sessions, recording of live concerts, editing, mixing and music p.a.

It is recommended that all students taking this course register concurrently for 198-224 Physics and Psychophysics of Music if they do not already have a background in this subject.

189-112A,B FUNDAMENTALS OF MATHEMATICS (Faculty of Science). (3 credits). Sets, the real number system, inequalities, graphs, relations and functions, exponential and logarithmic functions, trigonometric functions and their use, mathematical induction, permutations and combinations, bionomial theorem.

198-224A PHYSICS AND PSYCHOPHYSICS OF MUSIC (Faculty of Science). (3 credits; *Prerequisite:* none; 3 hours). An introduction to physics and psychophysics of music with demonstrations of the relevant phenomena and a predominantly qualitative treatment of the theories explaining these phenomena. The course is designed for students with an interest in music, psychology or physiology.

Pitch, loudness and timbre in the context of the physics properties of the human ear. The basic physics of music production including modes of oscillation of mechanical systems, resonance, feedback, transmission and reflection of sound. The human voice. Modern methods of sound production using electrical analogue devices and digital computers. An introduction to room reverberation and acoustics.

198-225B MUSICAL ACOUSTICS (Faculty of Science). (3 credits; *Prerequisite:* 198-224 or CEGEP physics AND 189-112 Fundamentals of Mathematics; 3 hours). A course in physical acoustics with particular applications to music, designed for students in music and in science who have interests in sound recording and reproduction.

Resonators and radiators, acoustic impedance. Acoustic properties of strings, bars, membranes, pipes and horns. Application to selected musical instruments. Direction characteristics of sound sources. Room acoustics.

304-232A INTRODUCTION TO ELECTRO-ACOUSTICS I (Faculty of Engineering). (3 credits; *Prerequisite:* 189-112 Fundamentals of Mathematics; 2 hours lecture plus 2 hours laboratory). Overview of the fundamentals in electronic circuits and instrumentation for the specific area of electroacoustic devices. Introduction to DC circuits, magnetism, electromagnetism, AC circuits, semiconductor devices, transistors and ICs. The laboratory will illustrate the lecture topics and introduce the use of electronic testing and measuring equipment, identification of electronic circuits and reading of simple circuit diagrams.

304-339B INTRODUCTION TO ELECTRO-ACOUSTICS II (Faculty of Engineering). (3 credits; *Prerequisite:* 304-232; 2 hours lecture plus 2 hours laboratory). Basic principles of operation and design of electroacoustical devices and systems. Transducers, amplifiers and attenuators, signal processing devices; magnetic tape sound recording - reproducing systems: disc recording, motion picture sound recording, digital sound recording and reproducing systems. The laboratory will demonstrate some of these devices and associated measuring, testing and analyzing equipment and techniques.

7.6 SCHOOL MUSIC (221-,222-,223-)

Choral Techniques (221-)

221-235A,B VOCAL TECHNIQUES. (3 credits; *Prerequisites:* 211-110 and 211-111 AND 212-128 and 212-130 or 212-129 and 212-131; *Prerequisites or corequisites:* 214-184 and 214-185; 3 hours and 2 hours lab). The human voice as an instrument will be examined together with a study of its physiological basis, principles of vocal tone production, teaching procedures and reference materials.
Laboratory: School Music Lab Choir.
Mr. Winston Purdy

221-315B CHORAL CONDUCTING I. (3 credits; *Prerequisites:* 221-235, 223-201, 223-203; *Prerequisites or corequisites:* 211-310 AND 212-328 or 212-329 AND 214-397; 3 hours and 2 hours lab). The fundamental skills of choral conducting, including baton technique, score reading and rehearsal procedures. Conducting materials will be selected from representative choral works.
Laboratory: School Music Lab Choir.
Professor Fred Stoltzfus

221-415A CHORAL CONDUCTING II. (3 credits; *Prerequisite:* 221-315; 3 hours and 2 hours lab). Advanced techniques of choral conducting with emphasis on expressive gestures and phrasal conducting, interpretation and chironomy of chant, recitative conducting, repertoire selection, score preparation and conducting of choral-instrumental works.
Laboratory: School Music Lab Choir.
Professor Fred Stoltzfus

General Music Techniques (222-)

- **222-205A PSYCHOLOGY OF MUSIC.** (3 credits; *Prerequisite:* none; 3 hours). Topics will include: the development and nature of musical ability and musical aptitude, the perception of musical elements (melody, rhythm, harmony, form, timbre), psychological aspects of musical performance, the nature and measurement of musical taste, and verbal labelling processes in music.
Professor Joel Wapnick

222-315B THE MUSIC APPRECIATION CLASS: PHILOSOPHY AND TECHNIQUES. (3 credits; *Prerequisite or corequisite:* 221-315 or 223-315; 3 hours). The philosohy of non-performance music classes (with special emphasis on the development of listening skills and of musical taste) will be examined together with techniques developed in Europe and North America. Emphasis will be given to the utility of these techniques in teaching both beginning and advanced music students.

- **222-340B CLASS COMPOSITION PHILOSOHY AND TECHNIQUES.** (3 credits; *Prerequisite or corequisite:* 221-315 or 223-315; 3 hours). The philosophy of group instruction in composition will be examined together with techniques developed in Europe and North America (viz., by Murray Schafer, Manhattanville Music Curriculum Project, Contemporary Music Project). The utility of these techniques in group theory instruction for beginning and advanced music students will be emphasized.

- **222-351B KODÁLY: PHILOSOPHY AND TECHNIQUES.** (3 credits; *Prerequisite or corequisite:* 221-315 or 223-315; 3 hours). The Kodály philosophy will be examined together with the techniques based upon this philosophy and developed in Hungary and North America. Emphasis will be given to the utility of these techniques in teaching both beginning and advanced music students.
Professor Joel Wapnick

- **222-352B DALCROZE: PHILOSOPHY AND TECHNIQUES.** (3 credits; *Prerequisite or corequisite:* 221-315 or 223-315; 3 hours). The Dalcroze philosophy will be examined together with the techniques based upon this philosophy and developed in Europe and North America. Emphasis will be given to the utility of these techniques in teaching both beginning and advanced music students.
Professor Joel Wapnick

- **222-353B ORFF: PHILOSOPHY AND TECHNIQUES.** (3 credits; *Prerequisite or corequisite:* 221-315 or 223-315; 3 hours). The Orff philosophy will be examined together with the techniques based upon this philosophy and developed in Germany in particular and also in North America. Emphasis will be given to the utility of these techniques in teaching both beginning and advanced music students.
Professor Joel Wapnick

- **222-355B SUZUKI: PHILOSOPHY AND TECHNIQUES.** (3 credits; *Prerequisite or corequisite:* 221-315 or 223-315; 3 hours). The Suzuki philosophy (especially as it relates to the stringed instruments) will be examined together with the techniques based upon this philosophy and developed in Japan and North America. Emphasis will be given to the utility of these techniques in teaching both beginning and advanced music students.

222-402D PRO-SEMINAR IN SCHOOL MUSIC. (6 credits; *Prerequisites:* 221-315 or 223-315 AND 221-235, 223-201, 223-202, 223-203, 223-204; *Prerequisites or corequisites:* 211-310 and 211-311 AND 212-328 and 212-330 or 212-329 and 212-331; 3 hours). The pro-seminar will explore significant issues in the application of selected techniques to school music in Europe and North America. A variety of group musical instruction techniques, orchestral and band, choral, music appreciation, and compositional techniques will be included.
Professor Estelle Jorgensen

222-403A or B, -404A or B SELECTED TOPICS IN SCHOOL MUSIC. (3 - 3 credits; 3 hours). Open only to honours students in School Music, this seminar course covers topics which may alter from year to year. Examples of such possible topics include: advanced choral or instrumental rehearsal procedures or performance practice, the application of selected musical techniques at the secondary school level, among others.
Staff

222-475D SPECIAL PROJECT. (3 credits). Open only to honours students in School Music, this course enables the student to engage in an individual research project with the approval of the Departmental Chairman and under appropriate supervision.

222-476D SPECIAL PROJECT. (6 credits). Open only to honours students in School Music, this course enables the student to engage in an individual research project with the approval of the Departmental Chairman and under appropriate supervision.

Instrumental Techniques (223-)

223-201A,B STRING TECHNIQUES. (3 credits; *Prerequisites:* 221-110 and 211-111 AND 212-128 and 212-130 or 212-129 and 212-131; *Prerequisites or corequisites:* 214-184 and 214-185; 3 hours and 2 hours lab). The fundamental techniques in performance of four common stringed instruments, i.e., violin, viola, cello, and bass. Principles of sound production on stringed instruments, historical development of the strings, purchase of new and used instruments, maintenance and repairs, teaching procedures and reference materials.
Laboratory: School Music Lab Orchestra.
Professor Stephen Kondaks

223-202A,B WOODWIND TECHNIQUES. (3 credits; *Prerequisites:* 211-110 and 211-111 AND 212-128 and 212-130 or 212-129 and 212-131; *Prerequisites or corequisites:* 214-184 and 214-185; 3 hours and 2 hours lab). The fundamental techniques in performance of five common woodwind instruments, i.e., clarinet, flute, oboe, bassoon, and saxophone. Principles of sound production on woodwind instruments, historical development of the woodwinds, purchase of new and used instruments, maintenance and repairs, teaching procedures and reference materials.
Laboratory: School Music Lab Orchestra.
Mr. Peter Freeman

223-203A,B BRASS TECHNIQUES. (3 credits; *Prerequisites:* 211-110 and 211-111 AND 212-128 and 212-130 or 212-129 and 212-131; *Prerequisites or corequisites:* 214-184 and 214-185; 3 hours and 2 hours lab). The fundamental techniques in performance of five common brass instruments, i.e., trumpet, horn, trombone, baritone, and tuba. Principles of sound production on brass instruments, historical development of the brass, purchase of new and used instruments, maintenance and repairs, teaching procedures and reference materials.
Laboratory: School Music Lab Orchestra.
Professor Robert Gibson

223-204A,B PERCUSSION TECHNIQUES. (3 credits; *Prerequisites:* 211-110 and 211-111 AND 212-128 and 212-130 or 212-129 and 212-131; *Prerequisites or corequisites:* 214-184 and 214-185; 3 hours and 2 hours lab). The fundamental techniques in performance of percussion instruments commonly in use in symphonic bands and orchestras. Principles of sound production on percussion instruments, historical development of the percussion, purchase of new and used instruments, maintenance and repairs, teaching procedures

and reference materials.
Laboratory: School Music Lab Orchestra.
Mr. Jaime McMillan

- **223-301B STRING TECHNIQUES.** (3 credits; *Prerequisite:* 223-201 or permission of the instructor; 3 hours and 2 hours lab). A study of current philosophies and techniques of string pedagogy as applied to class instruction. The methodologies of Suzuki, Rolland, Applebaum and others are studied together with pedagogical materials and string repertoire sequencing.
Laboratory: School Music Lab Orchestra.

223-315B INSTRUMENTAL CONDUCTING I. (3 credits; *Prerequisites:* 223-201, 223-202, 223-203, 223-204; *Prerequisites or corequisites:* 211-310 AND 212-328 or 212-329 AND 214-389; 3 hours and 2 hours lab). The fundamental skills of instrumental conducting, including baton technique, score analysis and rehearsal procedures; conducting materials are selected from representative orchestral works.
Laboratory: School Music Lab Orchestra.
Professor Fred Stoltzfus

- **223-358B PIANO TECHNIQUES.** (3 credits; *Prerequisite:* Completion of Piano Concentration Final Examination; *Prerequisites or corequisites:* 211-310 AND 212-328 or 212-329; 3 hours). Topics will include: application of learning principles to piano teaching and practice, use of practise time, verbal interactions between teacher and student, performance anxiety, fingering, and technical exercises. Pedagogical viewpoints will be examined in light of acoustical and psychological research.
Professor Joel Wapnick

223-415A INSTRUMENTAL CONDUCTING II. (3 credits; *Prerequisites:* 223-315 AND Audition; 3 hours and 2 hours lab). Advanced techniques of instrumental conducting with emphasis on interpretation, score preparation and realization; practical application includes the conducting of selected instrumental ensembles.
Laboratory: School Music Lab Orchestra.
Professor Fred Stoltzfus

7.7 JAZZ STUDIES, CONDUCTING, AND DICTION (240-,241-,242-)

240-213A JAZZ IMPROVISATION I. (3 credits; *Prerequisites:* Audition and permission of the instructor; 3 hours).
Professor Armas Maiste

240-214B JAZZ IMPROVISATION II. (3 credits; *Prerequisite:* 240-213; 3 hours).
Professor Armas Maiste

240-313A JAZZ IMPROVISATION III. (3 credits; *Prerequisites:* 240-214 and permission of the instructor; 3 hours).
Professor Armas Maiste

240-314B JAZZ IMPROVISATION IV. (3 credits; *Prerequisite:* 240-313; 3 hours).
Professor Armas Maiste

240-413A JAZZ IMPROVISATION V. (3 credits; *Prerequisites:* 240-314 with a grade of "A" and permission of the instructor; 3 hours).
Professor Armas Maiste

240-414B JAZZ IMPROVISATION VI. (3 credits; *Prerequisite:* 240-413; 3 hours).
Professor Armas Maiste

- **241-136D CONDUCTING.** (2 credits; 1 hour).
- **241-236D CONDUCTING.** (4 credits; *Prerequisite:* 241-136 with a grade of "A"; 1 hour).
- **241-336D CONDUCTING.** (6 credits; *Prerequisites;* 241-236 with a grade of "A"; 211-211; 223-201; 223-202; 223-203; 223-204; 1 hour).
- **241-436D CONDUCTING.** (8 credits; *Prerequisites;* 241-336 with a grade of "A"; 211-311; 211-327; 1 hour).
- **242-111A ITALIAN DICTION.** (2 credits; *Prerequisite:* none; 2 hours).
Professor Margaret Kalil

242-112B GERMAN DICTION. (2 credits; *Prerequisite:* none; 2 hours).
Professor Helmut Blume

7.8 ENSEMBLES (243-)

The deadline for withdrawing from ensembles is the end of the second week of classes in any term.

243-971A,B INTRODUCTORY PIANO ENSEMBLE. (1 - 1 credit; *Prerequisite:* Piano Concentration Intermediate Examination or equivalent; 2 hours). A survey of ensemble techniques and repertoire including piano duet, song and chamber music. This course is a prerequisite for all other ensembles involving the piano.
Staff

243-975A,B VOCAL ENSEMBLE. (1 - 1 credit; *Prerequisite:* Audition; 2 hours). Limited to 20 majors in Voice Performance. This course may not be taken for credit by those who have participated in Song Interpretation, Early Music Ensemble or Opera Studio.
Professor Margaret Kalil

243-976A,B BAROQUE CHAMBER ORCHESTRA. (1 - 1 credit; *Prerequisite:* Audition; 3 hours).
Professor Mary Cyr

- **243-977A,B ORCHESTRAL WIND REPERTOIRE.** (1 - 1 credit; *Prerequisite:* Audition; 2 hours).

243-978A,B WIND SYMPHONY. (1 - 1 credit; *Prerequisite:* Audition; 6 hours).
Professor Robert Gibson

243-979A,B SONG INTERPRETATION. (1 - 1 credit; *Prerequisite:* Audition; 2 hours).
Professors Tom Plaunt and Jan Simons

243-980A,B EARLY MUSIC ENSEMBLES. (1 - 1 credit; *Prerequisite:* Audition; *Prerequisite or co-requisite for keyboard players;* 211-272; 2 hours).
Professor Mary Cyr

243-981A,B PIANO ENSEMBLE. (1 - 1 credit; *Prerequisite:* 243-971A & B or permission of co-ordinator; 1 hour). Concentration on interpretation and performance of piano duet and two piano repertoire.
Staff

243-983A,B PIANO ACCOMPANYING. (1 - 1 credit; *Prerequisites:* 243-971A & B and Audition; 2 hours). A limited number of qualified students will be accepted for intensive work in this field. Singers and other instrumentalists will be assigned to work with this class.
Professor Charles Reiner

243-985A,B MIXED ENSEMBLES. (1 - 1 credit; *Prerequisite:* Audition; 1-2 hours).
Professor Stephen Kondaks and Staff

- **243-986A,B OPERA COACHING.** (1 - 1 credit; *Prerequisite:* Piano Audition; 3 hours).

- **243-987A,B CONTEMPORARY CHAMBER MUSIC CHOIR.** (1 - 1 credit; *Prerequisite:* Audition; 2-3 hours).

243-989A,B WOODWIND ENSEMBLES. (1 - 1 credit; 2-3 hours).
Professor Gerald Danovitch and Staff

243-990A,B CONCERT BAND. (1 - 1 credit; *Prerequisite:* Audition; 6 hours).
Professor Richard Lawton

243-991A,B BRASS ENSEMBLES. (1 - 1 credit; 2-3 hours).
Professor Robert Gibson and Staff

243-993A,B CHORAL ENSEMBLES. (1 - 1 credit; *Prerequisite:* Audition; 4 hours). Students enrolling in Choral Ensembles will be assigned to one or more of the following groups.
Professor Fred Stoltzfus and Staff

Chamber Singers: a group of approximately 24 mixed voices which explores the *a capella* repertoire of all periods as well as works with chamber accompaniment.

Concert Choir: an ensemble of approximately 40 voices (S.A.T.B.) which performs the repertoire from all periods appropriate to a group of this size.

University Chorus: a mixed chorus of approximately 100 which performs a variety of choral material including both traditional and popular selections.

Symphonic Chorus: a combination of the above comprising approximately 160 singers which performs the major choral works (oratorios, masses, symphonies, etc.) which require forces of this scope.

Women's Chorale: an ensemble of approximately 40 women stressing the fundamentals of singing and ensemble participation. Works are chosen from the substantial repertoire available for women's voices.

Choral Training Class: Students in the Symphonic Chorus whose choral experience is limited will be assigned to training classes specifically designed to help their progress in this area. These classes meet during the same 4-hour block as the regular choral rehearsals.

243-994A,B CONTEMPORARY MUSIC ENSEMBLE. (1 - 1 credit; *Prerequisite:* Audition; 2-4 hours).
Professors Bruce Mather and Eugene Plawutsky

243-995A,B JAZZ ENSEMBLE. (1 - 1 credit; *Prerequisite:* Audition; 3 hours).
Professor Gerald Danovitch

243-996A,B OPERA STUDIO. (2 - 2 credits; *Prerequisite:* Audition; 3-6 hours).
Professors Edith Della Pergola, Luciano Della Pergola and Staff

243-997A,B ORCHESTRA. (1 - 1 credit; *Prerequisite:* Audition; 6 hours).

243-998A,B PERCUSSION ENSEMBLES. (1 - 1 credit; 2-3 hours).
Professor Pierre Béluse

243-999A,B STRING ENSEMBLES. (1 - 1 credit; 2-3 hours).
Professor Stephen Kondaks and Staff

7.9 PERFORMANCE COURSES

- **250-301A PIANO PEDAGOGY.** (1 credit; *Prerequisite:* Piano Major Intermediate Examination or Piano Concentration Final Examination PLUS recommendation of student's piano teacher; 1 hour).

- **250-302B SEMINAR IN PIANO PEDAGOGY.** (1 credit; *Prerequisite:* 250-301; 1 hour).
Staff

253-300A,B VOICE COACHING. (2 - 2 credits; *Prerequisites:* Permission of student's voice teacher AND successful completion of Voice Major Intermediate Examination; 1 hour).
Staff

7.10 PRACTICAL SUBJECTS

TEACHING STAFF

Piano:
Mr. Norair Artinian
Prof. Helmut Blume
Mrs. Ljerka Blume
Prof. Elizabeth Dawson
Prof. Rose Goldblatt
Prof. Paul Loyonnet
Mrs. Esther Master
Prof. Dorothy Morton
Prof. Louis-Philippe Pelletier
Prof. Tom Plaunt
Prof. Charles Reiner
Mr. Karl Steiner
Mrs. Kathleen Tucker
Mr. Kenneth Woodman
Prof. Luba Zuk

Organ:
Prof. John Grew
Prof. Donald Mackey

Harpsichord:
Prof. John Grew

Voice:
Miss Kathleen Anderson
Miss Jo-Anne Bentley
Mrs. Betty Doroschuk
Prof. Margaret Kalil
Mme. Dina Maria Narici
Mr. Winston Purdy
Prof. Jan Simons

Strings:
Mr. Antonin Bartos, *guitar*
Prof. Mary Cyr, *viola da gamba*
Mr. Stephen Fentok, *guitar*
Prof. Mauricio Fuks, *violin*
Mr. Dennis James, *double bass*
Prof. Sonia Jelinkova, *violin*
Mr. Walter Joachim, *cello*
Prof. Stephen Kondaks, *violin and viola*
Mr. Michael Leiter, *double bass*
Mr. Peter McCutcheon, *guitar*
Mr. Edward Rusnac, *guitar*
Mr. Tom Williams, *violin*

Woodwinds:
Mr. Ted Baskin, *oboe*
Mr. Bruce Bower, *bassoon*
Prof. Gerald Danovitch, *saxophone and clarinet*
Mr. Peter Freeman, *saxophone and clarinet*
Mr. Richard Hoenich, *bassoon*
Mr. Tim Hutchins, *flute*
Prof. Emilio Iacurto, *clarinet*
Mr. Abe Kestenberg, *saxophone, clarinet and flute*
Miss Margaret Morse, *oboe*
Miss Cindy Shuter, *flute*
Mr. Tom Talamantes, *clarinet*

Brass:
Mr. Jean Gaudreault, *french horn*
Prof. Robert Gibson, *trumpet*
Mr. Ted Griffith, *trombone*
Prof. Richard Lawton, *trombone*
Mrs. Barbara Maxedon, *trumpet*
Mr. Stewart Taylor, *trombone*
Mr. James Thompson, *trumpet*
Mr. Ellis Wean, *tuba*
Mr. John Zirbel, *french horn*

Percussion:
Prof. Pierre Béluse

Harp:
Mrs. Dorothy Masella

PRACTICAL ASSIGNMENTS AND LESSONS

The assignment of students to teachers for private lessons is the responsibility of the Chairman of the Department of Performance. Student requests for specific teachers will be taken into consideration where possible. In general, students will be assigned on a first priority basis to study with full-time members of the teaching staff.

It is understood that returning students will study with the same teacher unless prior arrangements have been made with the Chairman of the Department in consultation with the teachers concerned. Teacher assignments will be made soon after the period of enrolment and posted on the notice boards during the first week of classes. Following this assignment, it is the students' responsibility to contact their teachers and arrange lesson times.

Individual lessons missed as a consequence of the instructor's absence will be made up at the mutual convenience of the instructor and student. Lessons missed as the result of the student's absence will be made up only if notice of cancellation has been given 48 hours in advance, or if a doctor's certificate is produced and prior notice of the cancellation is given.

N.B. Students who are preparing practical examinations in fulfillment of the requirements for any degree are expected to study under teachers on the staff of the Faculty of Music. For all performance majors, this is mandatory.

Students who have finished their practical instruction in the Faculty and who do not receive permission to defer their examination are required to pay an examination fee of $60 when the examination is taken at a later date.

CREDIT WEIGHTS FOR PRACTICAL STUDY

B. Mus. Elective or Concentration	2 credits each term
B.Mus. Major or Honours	4 credits each term
L.Mus.	8 credits each term
Concert Diploma	8 credits each term

COURSE NUMBERING (PRACTICAL SUBJECTS)

A six-digit course number is used to define the area and function of individual practical instruction offered by the Faculty of Music.

The first three digits indicate the instrument, *i.e.:*

224: Violin
225: Viola
226: Cello
227: Bass
228: Guitar
229: Percussion
230: Flute
231: Oboe
232: Clarinet
233: Saxophone
234: Bassoon
235: French Horn
236: Trumpet
237: Trombone
238: Harp
239: Tuba
250: Piano
251: Organ
252: Harpsichord
253: Voice
254: Viola da Gamba
255: Baroque Flute
256: Recorder

The fourth digit indicates the level of study:

Practical Major and Honours	Practical Concentration
1.	(Qualifying & Intermediate)
2. (Intermediate)	(Final)
3. (Semi-Final)	
4. (Final)	
6. (Postgraduate study)	

The fifth digit indicates the function of the particular subject in the student's curriculum, *i.e.:*

1. Elective
3. Concentration
4. Major (B.Mus.)
5. Major (L.Mus., Concert Diploma)
6. Honours

The final digit indicates examinations and/or recitals, *i.e.:*

0: No examination
2: Intermediate examination
3: Final examination (Concentration)
4: Semi-Final examination (major subject)
5: Final examination (major subject)
6: Recital
7: Recital
8: Elective examination
9: Concerto examination

The letter suffix to each course number indicates the term and duration of instruction (A-first term; B-second term; L or C-summer session).

Thus, the number 225-130A would provide the following information about the instrument, level of study, function, and examination level of a student's practical subject:

225- : viola
225-1 : intermediate
225-13 : concentration
225-130 : no examination
225-130A : first-term instruction

The number 250-354B would provide the following information:

250- : piano
250-3 : semi-final
250-35 : major (L.Mus.)
250-354 : semi-final examination
250-354B : second-term study (and examination)

EXAMINATIONS AND GOALS IN PRACTICAL SUBJECTS

Different levels of achievement are required of students depending upon the program of study for which they are registered. These levels are defined in part by the difficulty of material and length of program required at the various examinations, and in part by the examiners' assessment of how well the student plays this material. In general there are four categories of practical study:

Elective Study:

Work for students electing a practical subject beyond or in addition to their curricular requirements is planned by the instructor and student to satisfy the student's individual needs and aims. The student is not expected to follow a specific program and does not normally sit an examination.

Concentration Study:

A student in the Faculty Program or specializing in Composition, Music History, Theory or School Music is obliged to present two examinations in order to fulfil the practical requirement of these programs. These are: the Concentration Intermediate Exam, normally taken after one year of post-CEGEP study; and the Concentration Final Exam, taken some time later.

Major and Honours Study:

A student majoring in Performance (B.Mus. or L.Mus.) must show talent for this field before being admitted to the program. The practical requirement for these programs comprises three examinations: Major Intermediate Exam, Major Semi-Final Exam, and Major Final Exam. Following the final examination, the jury may recommend that the student be permitted to give a public recital.

Any U1 Performance Major may indicate an intention to pursue an Honours program but admission becomes final only in the U2 year after the results of the Major Intermediate Exam are available. Admission to the Honours program requires the approval of the student's teacher as

well as that of the examining panel. Following the Major Intermediate Exam, Honours students must present the Honours Semi-Final Exam and give one public solo recital.

Post-Graduate Study:

Concert Diploma candidates must present a number of public recitals as well as fulfil various special performance requirements (concertos, chamber music, orchestral passages, etc.). Marks of A in all practical requirements are mandatory for continuation in the program.

M.Mus. candidates should consult the *Announcement of the Faculty of Graduate Studies and Research* for the requirements of their program.

APPLICATION FOR EXAMINATIONS

Annual examinations are not mandatory so long as the student continues, in the opinion of the Department, to work well and improve at a suitable rate. By applying for a given examination, students signify that they are prepared to play and be judged accordingly. Permission to withdraw from, or postpone, a practical examination will normally be granted only in the case of illness. A medical certificate must be submitted to the Departmental Secretary within seven days after the withdrawal request has been received. Withdrawal from a practical examination on other than medical grounds must be authorized by the Departmental Chairman.

Application for the above examinations must be made on the appropriate form available at the Reception Desk. Applicants must obtain their teachers' approval on this form and submit it according to the following schedule:

Examination Period	*Application Deadline***	*Deadline for Cancellations*
Sept. 27-Oct. 1/82*	July 30	Aug. 20
Dec. 13-23/82	Oct. 15	Nov. 12
Apr. 18-May 4/83	Feb. 11	Mar. 11
Sept. 26-30/83*	July 29	Aug. 19

*The late-September examination period is normally available only for Fall graduands, singers or supplemental and deferred examinations. Requests for other practical examinations during this period must be approved by the Departmental Chairman.

It is recommended that students planning to take an examination in the Fall submit the program for approval before the end of May otherwise the program may not be seen by the Area Committee until September.

**All students must apply by this deadline. Applications may be withdrawn without penalty any time up to the deadline for cancellations given above.

Applications received after these deadlines will only be accepted with special permission from the Performance Departmental Chairman and on payment of a $15 late application fee.

APPLICATION FOR RECITAL EXAMINATIONS

Application forms as above must be submitted for **all** recital examinations (i.e., Honours recitals, Concert Diploma, etc.). The application must be received by the Department of Performance office at least **8 weeks** prior to the date of the recital.

MANDATORY EXAMINATIONS

The following chart lists the examination requirements of each program. Additional information concerning these examinations can be found on page 49 of this Announcement.

Program of Study	Instrumental or Vocal Stream	Examination	Course No. Ends In:
Bachelor of Music Major or Honours in Composition Major or Honours in Music History Major or Honours in School Music Honours in Theory Faculty Program	CONCENTRATION (eg. Piano Concentration)	INTERMEDIATE (eg. Piano Concentration Intermediate Examination)	-132A/B
		FINAL (eg. Piano Concentration Final Examination)	-233A/B
Bachelor of Music Major in Performance **Licentiate in Music*** MAJOR (eg. Oboe Major)		INTERMEDIATE (eg. Oboe Major Intermediate Examination)	-242A/B -252A/B*
		SEMI-FINAL (eg. Oboe Major Semi-Final Examination)	-344A/B -354A/B*
		FINAL (eg. Oboe Major Final Examination)	-445A/B -455A/B
Bachelor of Music Honours in Performance	HONOURS (eg. Violin Honours)	SEMI-FINAL (eg. Violin Honours Semi-Final Examination)	-364A/B
		RECITAL	-467A/B
Concert Diploma	POSTGRADUATE (diploma)	RECITAL I	-657A/B
		RECITAL II	-657A/B
		RECITAL III (if required)	-656A/B
		CONCERTOS (see no. 9 below)	-659A/B
Master of Music (M.Mus.)	POSTGRADUATE (degree)	RECITAL I	219-660D or 219-662D or 219-665D
		RECITAL II	219-661D or 219-666D

Other Examinations:

It is the teachers' prerogative to request a committee examination of any of their students during any term if they feel that this is in the student's best interest. Such an examination is recorded as an elective exam and is marked on the basis that it represents a level mid-way between the student's most recent mandatory examt and the succeeding one. The teacher's grade on the term work is prepared in advance and counts as 50% of the final mark.

GENERAL DESCRIPTION OF PRACTICAL EXAMINATIONS

A general description of each examination is given below. **Details of specific examination requirements may be obtained for each area (Piano, Organ & Harpischord, Voice, Strings, Woodwinds, Brass, Percussion) from the Department of Performance office.**

Examination Marking:

Normally, the final mark for any practical examination is the average of all the marks submitted by the individual examiners. In addition, however, at least half of the examiners on the panel must pass the student in order for him to continue to the next level of examination. (N.B. The passing grade in the Honours and Major Performance programs is an "A" and a "B" respectively.) In instances where the average mark is a passing grade but a majority of the panel has failed the student, the final mark will be the letter grade immediately below the satisfactory level.

All practical examinations will be graded by letter grades only. These letter grades are defined as follows:

		Points
A	Exceptional (High Distinction)	4.0
A–	Excellent (Distinction)	3.7
B+	Very Good	3.3
B		3.0
B–	Good	2.7
C+		2.3
C	Pass	2.0
D	Non-continuation pass	1.0
F	Fail	0

Average marks are determined by averaging the point values of all grades submitted and converting the result to a letter grade.

1. -132A/B: Concentration Intermediate Examination

Purpose: To assess the student's progress in the practical area and make recommendations for further study. The panel may recommend to the Department in which the student is registered that: a) the student be asked to withdraw from the program; b) the student be placed in probationary standing until the examination is repeated satisfactorily; c) the student, having made sufficient progress, may proceed to the Concentration Final Examination.

Panel: The Area Chairman or his delegate, the student's teacher and one other staff member from the area comprise the examining panel. The Chairman of the Department in which the student is registered, or his delegate, is also invited to attend the examination as a regular member of the panel.

Distribution of Marks: The teacher submits a mark for the term's work as well as a mark for the examination. The others on the panel each submit a mark for the examination and the final mark is the average of all these.

2. -233A/B: Concentration Final Examination

Purpose: To determine that the student is a sufficiently accomplished vocal or instrumental practitioner to qualify for the degree Bachelor of Music.

Panel: The panel consists of the Area Chairman or his delegate plus two other staff members from the area concerned.

Distribution of Marks: Each member of the panel submits a mark for the examination and the final mark is the average of these.

3. -242A/B or -252A/B: Major Intermediate Examination (B.Mus. or L.Mus.)

Purpose: To assess the student's progress in the practical area and determine whether or not the student may continue in the program. The panel may recommend to the Department that the student be: a) asked to withdraw from the program; b) placed in probationary standing until the examination is repeated satisfactorily; c) permitted to continue to the Major Semi-Final Examination; d) admitted to the Performance Honours program.

Panel: The Departmental Chairman or his delegate, the student's teacher, plus two other staff members from the area constitute the examination panel.

Distribution of Marks: The teacher submits a mark for the term's work as well as a mark for the examination. The others on the panel each submit a mark for the examination and the final mark is the average of all these.

4. -344A/B or -354A/B: Major Semi-Final Examination (B.Mus or L.Mus.)

Purpose: To assess the student's ability to perform a program of sufficient length and suitable repertoire as specified in the requirements for each instrument.

Panel: The panel consists of the Area Chairman or his delegate plus two other representatives from the area concerned.

Distribution of Marks: Each member of the panel submits a mark for the examination and the final mark is the average of all these.

5. -445A/B or -455A/B: Major Final Examination (B.Mus. or L.Mus.)

Purpose: To determine that the student is a sufficiently accomplished vocal or instrumental performer to qualify for the Licentiate in Music or the degree Bachelor of Music with a Major in Performance. The examination will assess the student's ability to perform a complete recital program as well as any other requirements which may be specified for individual instruments. The panel may recommend that the student be permitted to present a public recital.

Panel: The Departmental Chairman or his delegate, the Area Chairman, plus two other representatives from the area concerned constitute the examining panel.

Distribution of Marks: As for the Major Semi-Final Examination.

6. -364A/B: Honours Semi-Final Examination

Purpose: To determine that the student is capable of outstanding undergraduate work and therefore eligible to continue in the Honours program. Upon successful completion of this examination, the student may make the necessary arrangements for presenting the solo recital (see Honours Recital below) required in the program.

Panel: The panel consists of the Departmental Chairman or his delegate, the Area Chairman, plus one other staff member from the area concerned.

Distribution of Marks: As for the Major Semi-Final Examination.

7. -467A/B: Honours Recital

Purpose: The Honours recital is performed before an audience as well as a jury and is intended to demonstrate competence in public solo performance. Non-keyboard players and singers will, of course, use appropriate accompaniment which may be provided either by a keyboard instrument or chamber ensemble. A high level of achievement is expected and a grade of "A" is required.

Panel: The jury for these recitals consists of the Departmental Chairman or his delegate as well as three staff members from the area concerned.

Distribution of Marks: As for the Major Semi-Final Examination.

8. Postgraduate Recitals

Purpose: Recitals in the Concert Diploma and M.Mus. programs are intended to demonstrate that the student is qualified to engage in professional performance activities, and has attained the high level of performing ability required for the Concert Diploma or the M.Mus. degree.

Panel: For the Concert Diploma recitals, the panel consists of the Departmental Chairman or his delegate as well as two staff members from the area concerned (in Voice recitals, one voice teacher plus one staff member from another area). In the M.Mus., the Chamber Music Recital (219-661D) and Voice Recital II (219-666D) are evaluated by two internal examiners appointed by the Graduate Committee of the Faculty of Music; recitals 219-660D, 219-662D and 219-665D are judged by one external and two internal examiners appointed by this Committee.

Distribution of Marks: Examiners judge the recital independently and submit their evaluation without consulting the other examiners. All of the examiners must judge the recital to be satisfactory for the candidate to pass.

9. -659A/B: Concertos

Purpose: The Concert Diploma programs for orchestral and keyboard instruments require the candidate to present two and three concertos respectively. The concertos are normally examined only by jury but may, if circumstances permit, be given in public with suitable accompaniment. The concerto examinations may be planned for any time during the academic session subject to the availability of examiners and facilities. An application, similar to the undergraduate examination application, must be submitted to the Department of Performance office at least 5 weeks prior to the proposed date.

Panel: The panel consists of the Departmental Chairman or his delegate as well as two staff members from the area concerned.

Distribution of Marks: Examiners judge the concerto independently and submit their evaluation without consulting the other examiners. All the examiners must judge the concerto to be satisfactory for the candidate to pass.

1982-83 CALENDAR OF DATES

1982

Mar. 8, Mon. to Mar. 31, Wed.	Academic counselling for Early Course Selection in Music.
Apr. 2, Fri.	Last day of lectures in Department of School Music.
Apr. 5, Mon. to Apr. 8, Thurs.	Examinations in School Music techniques courses.
Apr. 8, Thurs.	Last day of Winter Term in Music.
Apr. 9, Fri. to Apr. 12, Mon. (incl.)	EASTER. Administrative Offices closed.
Apr. 13, Tues. to Apr. 16, Fri.	Entrance auditions for undergraduate applicants in Music.
Apr. 13, Tues. to Apr. 30, Fri.	Examinations in lecture courses in Music.
Apr. 19, Mon. to May 5, Wed.	Practical examinations in Music.
May 5, Wed. and May 7, Fri.	Entrance auditions for Master of Music (Performance) applicants.
May 6, Thurs. to May 12, Wed.	Entrance auditions for undergraduate applicants in Music.
May 13, Thurs. and May 14, Fri.	Placement tests in Music History, Theory, Ear Training and Keyboard Proficiency for applicants in Music.
May 20, Thurs. and May 21, Fri.	Supplemental examinations in lecture courses in Music.
May 24, Mon.	VICTORIA DAY. Administrative Offices closed.
June 8, Tues. and June 9, Wed.	McGill Spring Convocations.
June 24, Thurs.	LA FÊTE NATIONALE DU QUÉBEC. Administrative Offices closed.

N.B. After la Fête Nationale du Québec and until Labour Day, Administrative Offices will close each Friday at 12:45 p.m.

July 1, Thurs.	DOMINION DAY. Administrative Offices closed.
Sept. 1, Wed. to Sept. 3, Fri.	Placement tests in Music History, Theory, Ear Training and Keyboard Proficiency for applicants in Music. AND Counselling of returning undergraduate students in Music.
Sept. 6, Mon.	LABOUR DAY. Administrative Offices closed.
Sept. 7, Tues. to Sept. 9, Thurs.	Counselling and registration of Music undergraduate students in the Strathcona Music Building.
Sept. 8, Wed. and Sept. 9, Thurs.	Auditions for Music Ensemble courses.
Sept. 10, Fri.	I.D. cards for Music: 8:30 a.m. to 5:00 p.m. in Sir Arthur Currie Gym. Registration of Music graduate students in the Strathcona Music Building from 9:30 a.m. to 1:00 p.m.
Sept. 13, Mon.	Instruction begins in Music.

Sept. 13, Mon. to Sept. 24, Fri.	Course Change Period in Music. Students may not begin any courses after this period. Dates for processing of forms will be announced.
Sept. 16, Thurs.	Deadline for approval of Course Selection Forms. Late Registration.
Sept. 27, Mon. to Oct. 1, Fri.	Supplemental and Deferred practical examinations.
Oct. 11, Mon.	THANKSGIVING DAY. Lectures cancelled. Administrative Offices closed.
Oct. 15, Fri.	Deadline for withdrawing (W) from first term ("A") courses in Faculty of Music (Oct. 29 for Arts/Sc. courses).
TBA	McGill Fall Convocation.
Nov. 26, Fri.	Deadline for withdrawing (W) from full year ("D") courses in Faculty of Music (Dec. 3 for Arts/Sc. courses).
Dec. 10, Fri.	Last day of all music courses except practical lessons.
Dec. 13, Mon. to Dec. 23, Thurs.	Examinations and class tests in **all** music subjects.
Dec. 17, Fri.	Last day of practical instruction.

1983

Jan. 3, Mon. and Jan. 4, Tues.	Placement tests in Music History, Theory, Ear Training and Keyboard Proficiency for applicants in Music.
Jan. 5, Wed.	First day of Winter Term in Music.
Jan. 6, Thurs.	Winter Term registration for new students in Music.
Jan. 5, Wed. to Jan. 19, Wed.	Winter Term Course Change Period in Music. Students may not begin any courses after this period. Dates for processing of forms will be announced.
Jan. 19, Wed.	Deadline for approval of Course Selection Forms and late registration.
Feb. 4, Fri. and Feb. 5, Sat.	Mid-term weekend holiday (Winter Carnival). Lectures cancelled.
Feb. 11, Fri.	Deadline for withdrawing (W) from second term ("B") courses in Faculty of Music. (Feb. 25 for Arts/Sc. courses).
Feb. 24, Thurs.	Entrance auditions for Master of Music (Performance) applicants.
Feb. 24, Thurs. and Feb. 25, Fri.	Study Break. Lectures cancelled.
Mar. 7, Mon. to Mar. 31, Thurs.	Academic counselling for Early Course Selection in Music.
Apr. 1, Fri. to Apr. 4, Mon. (incl.)	EASTER. Lectures cancelled. Administrative Offices closed.
Apr. 8, Fri.	Last day of Winter Term in Music except for practical lessons.
Apr. 11, Mon. to Apr. 13, Wed.	End of term break.
Apr. 15, Fri.	Last day of practical instruction.
Apr. 11, Mon. to Apr. 15, Fri.	Entrance auditions for undergraduate applicants in Music.

Apr. 14, Thurs. to Apr. 29, Fri.	Examinations in lecture courses in Music.
Apr. 18, Mon. to May 4, Wed.	Practical examinations in Music.
May 5, Thurs. and May 6, Fri.	Entrance auditions for Master of Music (Performance) applicants.
May 5, Thurs. to May 11, Wed.	Entrance auditions for undergraduate applicants in Music.
May 12, Thurs. and May 13, Fri.	Placement tests in Music History, Theory, Ear Training and Keyboard Proficiency for applicants in Music.
May 19, Thurs. and May 20, Fri.	Supplemental examinations in lecture courses in Music.
May 23, Mon.	VICTORIA DAY. Administrative Offices closed.

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An application for admission to McGill University may be obtained by completing this form, checking the square below, and returning the form to the address given below.

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☐ Nursing B.Sc.(N.)

M.Sc.(A.) Applicants: see section 4.1.1

1982-83 SCHOOL OF NURSING



McGill University
Montreal

Wilson Hall, 3506 University Street
Montreal, PQ, Canada H3A 2A7
Telephone (514)392-5034

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The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

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2 GENERAL INFORMATION

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Since its beginning in 1920, the School of Nursing has grown in its continued effort to educate nurses who will improve the quality of nursing, in whatever area they may practise. With the growing complexity of medical care, and the rapid growth of scientific knowledge, the nursing profession needs educated, thoughtful practitioners who can assess nursing problems and develop new ways of solving them.

The School has two programs:

(1) A bachelor's program for holders of a collegial diploma in Health Sciences or Nursing (or its equivalent) or those with a hospital school diploma.

(2) A program leading to a Master of Science, Applied degree for nurses holding a bachelor's degree and for non-nurses holding a bachelor's degree comparable to a B.Sc. or B.A. program offered at McGill.

The School is administered in the Faculty of Medicine and is located in Wilson Hall, which houses classrooms, faculty offices, a professional library, and lounges. Students registered in the School also take courses in other faculties within the University. Selected field experience in nursing is provided in the McGill Teaching Hospitals, and in a wide variety of health and social agencies in Montreal. Specific programs of study are outlined in the relevant section of this Announcement.

The language of instruction at McGill is English. Students may write term papers and examinations in French.

2.2 HEALTH REQUIREMENTS AND SERVICES

All new B.Sc.(N.) and non-nurse students in the qualifying year of the M.Sc.A. program must have proof of inoculations for tetanus, poliomyelitis and diphtheria. Chest x-rays and tuberculosis sensitivity testing will be arranged by the School after registration, as well as up-dating of any past immunization.

Health Service is provided for all students during the school session.

COMPULSORY HEALTH INSURANCE FOR NON-CANADIAN STUDENTS

All full-time non-Canadian students must enrol in the McGill Non-Canadian Student Health and Accident Insurance Plan. Consequently, students and their dependents are covered to a large extent for medical and hospital expenses during the academic year.

2.3 LANGUAGE REQUIREMENT FOR PROFESSIONS

Québec law requires that candidates seeking admission to provincially-recognized Québec professional corporations must possess a working knowledge of the French language, i.e., be able to communicate verbally and in writing in that language.

To demonstrate this capability, candidates will be required to pass an examination set by the Office de la langue française, unless they can show that three years of instruction in a French post-primary school have been completed. The professional corporation will require this proof of attendance or of successful completion of the Office examination.

This examination shall test the candidate's mastery of oral and written comprehension and expression in French. The contents may vary in accordance with the current terminological requirements of the profession or professional group.

Examinations take place every three months and may be attempted an unlimited number of times.

The examination may be attempted by registered students during the two years prior to the date they receive a degree giving access to a professional corporation. Arrangements for sit-

ting the exam while still a student must be made through the faculty office.

More information may be obtained from the Office de la langue française, Tour de la Bourse (Place Victoria), 15e étage, Montréal, Québec H4Z 1G8, Telephone 873-8361.

Students who need to acquire a functional level of proficiency in French may register in courses at either the English and French Language Centre, 3438 McTavish Street, Telephone 392-5727, for courses during the day, or at the Centre for Continuing Education, 772 Sherbrooke Street West, Telephone 392-4901, for courses in the evening.

Students already proficient in French but who wish to keep up practice may register in courses at the Department of French Language and Literature, 3460 McTavish Street, Telephone 392-4577, or at the centre d'études canadiennes-françaises, 3475 Peel Street, Telephone 392-5200.

* McGill degrees and diplomas currently give access to corporations regulating the activities of the following professional groups:

Advocates
Agrologist
Architects
Chartered Accountants
Chartered Administrators
Chartered Appraisers
Chemists
Dentists
Dietitians
Engineers
Industrial Administration Accountants
Industrial Relations Counsellors
Licensed General Accountants
Notaries
Nurses
Occupational Therapists
Physicians
Physiotherapists
Psychologists
Social Workers
Speech Therapists & Audiologists
Urbanists
Vocational Guidance Counsellors

2.4 FEES

REGULATIONS FOR PAYMENT OF FEES

New Students

Students entering the University for the first time and those returning in Graduate Studies are required to pay their fees for the term in which they are registered either by mail or in person at the Accounting Office within 10 days after registration. For students registering in September the Winter term fees are due by January 15, 1983.

A late payment fee of $10 for the first 30 days, $25 thereafter, is charged for payment after the specified dates.

Returning Students

Returning students from the previous year (except in Graduate Studies) must pay their tuition fees for the Fall term, plus half their annual Students' Societies and Student Services fees by mail or in person to the Accounting Office before August 23, 1982, otherwise they will not be permitted to register. Instructions for paying fees in advance will be mailed to all returning students, either with their Sessional Reports of Standing or a short time later. Students who have been notified by the University of the award of a scholarship, bursary or student loan, and who require this award for payment of the Fall term fees, must obtain permission to delay payment of fees from the Student Aid Office.

The Winter term fees are due by January 15, 1983. A late payment fee of $10 for the first 30 days and $25 thereafter is charged for payment after the specified dates.

LATE REGISTRATION

Except in circumstances relating to admission procedure, and with the approval of the program coordinator, late registration is not permitted in the School of Nursing. When students do register late, they must pay their fees at the time of registration, failing which they become subject to the late payment fee and the provisions of the following paragraph:

Transcripts of records, diplomas and permission to re-register will be withheld if tuition fees as well as outstanding residence fees, library fines or other charges are not paid by the prescribed dates.

Further information concerning fees, including the application for graduation fee of $25, is given in the *General Announcement* available from the Registrar's Office, F. Cyril James Building.

REGULATIONS CONCERNING WITHDRAWAL

Tuition fees for individual course withdrawal as well as for complete withdrawal from the University are refundable under conditions outlined in the *General Announcement.*

HOUSING AND RESIDENCE FACILITIES

Operating year-round, the Off-Campus Housing Service, 3637 Pell Street, Room 206 (392-4554), offers assistance to those seeking lodging. For an unfurnished bachelor apartment expect to pay between $150-$225 monthly.

There is limited room space available in university residences. Further information is contained in the Residential Facilities section of the *General Announcement* which is available from the Registrar's Office.

The university also owns and operates several apartment buildings in the campus neighborhood, some of which cater to married students. Address inquiries to the Real Estate Office, 3757 University Street, Apt. 202, Montreal, PQ. H3A 2B1 (tel.: 392-8214).

EXPENSES

BACHELOR OF SCIENCE IN NURSING tuition fees are based on $19 per credit. New foreign students are required by the Québec government to pay 60% of the estimated cost of their studies. In 1981-82 this was $4,128 per year of $137.60 per credit. The rate for 1982-83 will be announced as soon as it is determined by the government. Returning foreign students will pay $3,500 per year of $116.70 per credit and an additional $1,000 per year in each subsequent year until they reach the rate paid by newly admitted foreign students.

Fees and Expenses (All students)

Student Services	$95
Students' Societies Fees	$45
Room & Board (Sept.-June)	$2125
Books and Equipment	$250
Transportation (3rd year)	$100
Graduate Pins (3rd year)	approx. $35
Compulsory Non-Canadian Student Health and Accident Plan	$138 single, $269 married

MASTER OF SCIENCE, APPLIED PROGRAM:

Tuition Fees

Qualifying program	$570
Full Time	$570
Additional Sessions	$40

Tuition Fees (Foreign Students*)

Other Fees and Expenses (All students)

	Student Services	Students' Societies
Qualifying program	$95	$43.50
Full Time	$95	$43.50
Additional Sessions	$95**	$17.70
Room & Board	$2000-$2500 per year	
Books	$200-$300 per year	
Graduate Pins (non-nurses)	approx. $35	
Miscellaneous, including typing	$300 per year	
Compulsory Non-canadian Student Health and Accident Plan	$138 single, $269 married	
Application for Graduation Fee	$25	

* Exemption from Foreign Student Fees may be claimed by students in certain categories. A list of these categories and the required application form are available at the Registrar's Office.

**Student Services Fees for additional session students are optional. Arrangements may be made at the Department of Athletics or the Dean of the Students Office.

2.5 SCHOLARSHIPS, BURSARIES AND PRIZES

There are a number of entrance scholarships open to students from all parts of Canada registering in the University. Information may be obtained from the Admissions Office. Additional information is available in the *Undergraduate Scholarships and Awards Announcement* which can be obtained from the Registrar's Office.

For students at the graduate level, please see the *Faculty of Graduate Studies and Research Announcement* and the *Postgraduate Fellowships, Bursaries and Prizes Announcement* for information applicable to candidates accepted into the Master's program. Both booklets may be obtained from the Faculty of Graduate Studies and Research, 3rd floor, Dawson Hall, 853 Sherbrooke St. West, Montreal H3A 2T6. Candidates are advised to begin applications early for such awards in order for the process to be completed prior to entrance into the program. Additional information may be obtained by contacting the School of Nursing, Master's Program Office.

2.6 STUDENT SERVICES

Information concerning the various student services available is contained in the *General Announcement* which may be obtained from the Registrar's Office.

2.7 UNIFORMS

B.Sc.(N.) students are required to supply themselves with a uniform obtained from the School. A plain dark coat is required for community nursing.

2.8 REGISTRATION

Preliminary registration for all B.Sc.(N.) students will be held on Friday, September 10, at the School; those whose last names begin A-K report 9 A.M.—noon, L-Z 1 P.M.-4 P.M. All students must complete registration in the Sir Arthur Currie Memorial Gymnasium that day before 5 p.m.

N.B. Registration information for students in the Master's Program will be provided by the School directly to the applicant.

2.9 EXAMINATIONS

Final examinations will be held for first-term half courses December 13-23, 1982, and for full courses and second-term half courses in April. Mid-term examinations for full courses may be held in December depending upon the instructor.

Letter grades are used as follows: A, A−, B+, B, B−, C+, C, D, and F. For students in the B.Sc.(N.) program, the pass grade is a C. In the Master's program the pass grade is 65%, except for Nursing courses which are graded on a pass-fail basis.

A student who has failed in a final examination must be given permission by the Director of the School to write a supplemental examination and must write this supplemental during the following August. Written application must be made before August 1. A fee of $10 for each supplemental paper is payable to the Cashier as soon as the application has been approved. A student who wishes to write a supplemental examination outside McGill must make application to the Director to do so before July 15. There is an additional fee of $10 for establishing such an outside centre.

3 BACHELOR OF SCIENCE IN NURSING PROGRAM

3.1 PROGRAM

The curriculum extends over three years with general and professional courses in each year. Nursing courses in Summer Session are indicated according to program. Experience will be concentrated in the community health centres, and experience in hospitals and other agencies will be closely linked to the home and community.

Each nursing course is a prerequisite for the following one, and the student must successfully complete it before proceeding. Each course is assigned a credit rating reflecting the amount of effort it demands of the student.

3.2 ENTRANCE REQUIREMENTS

3.2.1 CEGEP Diploma (Health Sciences) or equivalent

Two pre-university years in a Québec Collège d'Enseignement Général et Professionel (CEGEP) or the equivalent in any university are prerequisite. Required Science courses are Biology 301, 401; Physics 101, 201, 301-78; Mathematics 103, 203; Chemistry 101, 201, 202. Students who wish to extend their preparation for the Nursing program may wish to include Chemistry 302, as well as introductory courses in psychology and sociology, in their CEGEP studies although these are not prerequisite courses.

3.2.2 CEGEP Diploma (Nursing) or equivalent

— license to practise nursing in Quebec or authorization from the Order of Nurses of Quebec to practise nursing as a student*

3.2.3 Hospital School Diploma

— CEGEP courses — Biology 301 and 401 (preferred)

— license to practise nursing in Quebec or authorization from the Order of Nurses of Quebec to practise nursing as a student*

* Since applicants under 3.2.2 and 3.2.3 are already licensed to practise nursing in Quebec or elsewhere, language requirements specified in 2.3 do not apply.

An application form for admission can be obtained by completing the form at the front of this announcement.

3.3 COURSE OF STUDY

3.3.1 CEGEP Diploma (Health Sciences) or equivalent *Students enrolled before September 1981*

Third Year
Social Psychology 204-330A, 331B
Selected A course from Arts or Science
Biology 177-274A
Nursing 572-400A, 401B

3.3.2 CEGEP Diploma (Nursing) or equivalent AND Hospital School Diploma *Students enrolled before September 1981*

Third Year
Social Psychology 204-330A, 204-331B
Microbiology 528-211A, 212A
Pathology 546-300B
Nursing 572-400A
Nursing 572-401B

3.3.3 CEGEP Diploma (Health Sciences) or equivalent

First Year
Biology 177-200A, 201B
Physiology 552-201A, 202B
Sociology 166-210A, selected B course
Nursing 572-202A, 205A, 203B, 204C

Second Year
Microbiology 528-211A
Pathology 546-300B
Psychology 204-304D
Nursing 572-302A, 304B, 305C

Third Year
Selected A & B courses, one of which is at the 300 level or above from Science
Social Psychology 204-330A, 331B
Nursing 572-402A, 403B

3.3.4 CEGEP Diploma (Nursing) or equivalent AND Hospital School Diploma *Students enrolling as of September 1981*

Students will be required to complete three years of study. The first year may be taken at McGill or at a CEGEP. Depending on the school chosen, the program is as listed below. **Foreign students** (except U.S.A.) must take advanced level examinations in biology, chemistry, physics, mathematics, and sociology with a minimum grade of C in each subject before applying.

First Year McGill Courses
Chemistry 180-120A, 110B, 212C
Mathematics 189-112A, 120B
Physics 198-101A, 102B
Sociology 166-214A, selected B course

OR

First Year CEGEP Courses
Chemistry 101, 201, 202
Mathematics 101 (or other post secondary mathematics course), 103
Physics 101, 201, 301-78
Sociology 960, 961

Second Year
Biology 177-200A, 201B
Physiology 552-201A, 202B
Nursing 572-312A, 205A, 313B, 314C

Third Year
Microbiology 528-211A
Pathology 546-300B
Social Psychology 204-330A, 331B
Nursing 572-402A, 403B

3.4 DESCRIPTION OF COURSES FOR STUDENTS ENROLLED BEFORE SEPTEMBER 1981

572-400A In an intensive study of the health-illness behaviour of families, community resources and participation in the health team are explored and utilized as vehicles through which assistance to individuals and families with health problems is provided. Emphasis is palced upon further development of nursing, interpersonal skills and selected medical techniques. (3 hours class and 20 hours experience weekly) 8 credits.

572-401B A study of the principles of management as they pertain to the delivery of health care to groups of patients. This study is viewed within the context of today's health care issues. The nursing profession is examined within an historical perspective and as a force in today's society. (3 hours class and 20 hours experience weekly.) 8 credits.

3.5 DESCRIPTION OF COURSES FOR STUDENTS ENROLLED AFTER SEPTEMBER 1981

572-202A Introduction to concepts of nursing, families and health. Learning to nurse elderly people in long stay institutions and in their homes. The development of technical and interpersonal skills is fostered concurrently. (3 hours class; 8 hours experience weekly) 5 credits.

572-203B Learning to nurse middle aged and elderly people who require a short term hospitalization. Emphasis is on assisting patients and families to cope with their health/illness problems. (3 hours class; 8 hours experience weekly) 5 credits.

572-204C Learning to nurse adults undergoing planned surgical intervention. The student nurses patients during pre-operative, intra-operative and post-operative phases. (May – 10 hours class; 20 hours experience weekly) 4 credits.

572-205A Health and the quality of life. This course deals with learning of health behaviour and its importance to the quality of life with special emphasis on the individual, family, and community health. Within this context, discussion will further highlight the approach used to investigate and analyze issues of health and health care. (3 hours class) 3 credits.

572-302A Learning to nurse adults with chronic health problems. Development of skills related to caring for people experiencing pain, depression, physical immobility and other changes related to their health status. (2 hours class; 16 hours experience weekly) 6 credits.

572-304B Learning to nurse families who are experiencing developmental changes, i.e., incorporating a new child and managing the health promotion of children. (2 hours class; 16 hours experience weekly) 6 credits.

572-305C Extending the knowledge and skills acquired in 302A, 205A, 304B including communication and decision making skills. Emphasis will be on development of skill in working with other

health professionals relative to long term health needs of clients. (May – 10 hours class; 20 hours experience weekly) 4 credits.

572-312A A study of the health and coping behaviours of individuals and families. Students will learn to incorporate their increased knowledge of science into the process of nursing. Further development of technical, communication and decision making skills. (3 hours class; 16hours experience weekly) 7 credits.

572-313B Learning to nurse families with children of different ages who are experiencing developmental changes. Emphasis on refining students' assessment skills. (2 hours class; 16 hours experience weekly) 6 credits.

572-314C Learning to nurse families with chronic health needs. Emphasis will be on development of skills in working with other health professionals. (May – 10 hours class; 20 hours experience weekly) 4 credits.

572-402A Learning to participate as a member of the health team in a health centre by nursing a group of families from that centre in their homes. Study of the health problems of a community and how the community organizes to meet their citizens' health needs. (3 hours class; 20 hours experience weekly) 8 credits.

572-403B Principles of management as they pertain to the delivery of health care to groups of clients. This study is extended to an examinationof the nursing profession within its social context. (3 hours class; 20 hours experience weekly) 8 credits.

3.6 ALL STUDENTS NOTE:

The anatomy, nutrition, pharmacology content central to nursing is included in all nursing courses.

Experience is obtained in the McGill teaching hospitals and selected community agencies under the direction and guidance of the staff of the School of Nursing.

Following completion of the bachelor's program, internships of 2-4 months are planned for selected students to prepare for nursing practice in primary health care or as nurse specialists in clinical fields.

4 MASTER OF SCIENCE APPLIED PROGRAM

4.1 GENERAL INFORMATION

The two-year program leading to the degree of Master of Science, Applied is designed to prepare clinicians and researchers for the expanding function of nursing in our rapidly developing health care services. A choice of options, Clinical Nursing Practice or Researchor a combination of these, is provided in the second year of the program. These options are closely associated with the Research Unit in Nursing and Health Care which has been established in the School of Nursing. Our growing attention to the study of nursing and health care problems should contribute to the quality of care and the delivery of health services in this country. Research in the health care field by graduates of the program will eventually lead some to undertake further study at the doctoral level.

Option A – Clinical Nursing Practice

To meet expectations for an expanded role function and for clinical nursing expertise in all domains of health care, the Master's program provides for the study of nursing over a two-year period incorporating research and evaluation methods in the investigation of nursing problems. All areas are available for students to experience, study and explore. These include common health problems and illness situations among individuals and families in various settings in the community: Hospital, Home, Health Centre and School.

Option B – Research in Nursing and Health Care

The two-year program combines the study of nursing in the expanded role with opportunity to carry out a thorough investigation of a problem in nursing or health care evaluation. Emphasis is placed on the design of research and evaluation projects. All clinical facilities and types of problems are available to students for exploration.

4.1.1. Entrance Requirements

Nurses

Applicants for the M.Sc.A. degree must have completed a bachelor's degree with a superior record of academic achievement. Preparation in nursing comparable to the bachelor's programs offered a McGill and accomplishment and development as a nurse are required.

All nurse applicants are expected to have current registration in Canada or in the country from which they come. Nurses who are not licensed in Québec must obtain a special authorization for graduate nurse students from the Order of Nurses of Québec.

Non-nurses

Non-nurses holding a bachelor's degree comparable to a B.Sc. or B.A. program offered at McGill and who have potential for the study of nursing may be admitted to a Qualifying Year. There are a number of specific minimum requirements at the bachelor's level for B.A. and B.Sc. applicants to the Qualifying Year (G.P.A. of 3.0 or high B standing).

APPLICATION FOR ADMISSION

Application forms and other information may be secured from the Director, School of Nursing, attention Master's Program Office. Classes are admitted in September. Except under unusual circumstances, the application procedure must be **completed** byJuly 1 previous.

ACADEMIC REGULATIONS

The General Rules Concerning Higher Degrees apply. (See Section 2 of *Graduate Studies and Research General Announcement*). A minimum of two years of study is required for students entering the Master's program, the first year of which may be taken on a half-time basis, i.e., extended over two years. Students who do not have all the prerequisites for entry may apply for a qualifying year. Non-nurses must enter the qualifying year of study, followed by two years in the regular Master's program.

The comprehensive examination, Nursing 573-601 and the Nursing Seminar 573-602, or Research Seminar 573-603 are taken on completion of all other course requirements. Graduates of B.A. and B.Sc. programs are expected to obtain their license to practice nursing (N.) following successful completion of requirements for the M.Sc.A. degree.

4.2 COURSE OF STUDY

FIRST YEAR (Option A and Option B)

Nursing 573-611D. Seminar in Practice of Nursing
Nursing 573-612A. Research Methods in Nursing
Nursing 573-615B. Health Care Evaluation
Psychology 204-204A. Psychological Statistics
OR
Sociology 166-350A. Elementary Statistics in Sociology and Anthropology
One and ahalf electives (nurse students)
One elective (non-nurse students)
AND
573-623A - Clinical Assessment and Therapeutics

SECOND YEAR

Option A - Clinical Nursing Practice

Nursing 573-711D. Study of Problems in the Practice of Nursing
One Elective
One of either:
Nursing 573-763A and 764B. Teaching of Nursing and Practicum
OR
Nursing 573-772A and 773B. Development and Management of Nursing Services and Practicum

Option B - Research in Nursing and Health Care

Nursing 573-712D. Research in Nursing and Health Care
Statistics - an advanced course
One of either:
Nursing 573-763A. Teaching of Nursing
OR
Nursing 573-772A. Development and Management of Nursing Services

Elective courses selected in consultation with the adviser, are available from Arts, Science, Education, Management and some, in the health care field, from the Department of Epidemiology.

ADDITIONAL REQUIREMENTS (to be completed toward the end of the program):

Nursing 573-601. Comprehensive Examination. A comprehensive examination on the practice and study of nursing.

Nursing 573-602. Nursing Seminar - Option A. Presentation and discussion of a significant problem in the practice of nursing to faculty and to concerned practitioners in the clinical field.

Nursing 573-603. Research Seminar - Option B. Presentation and discussion of student's research or evaluation project to faculty and to concerned practitioners and researchers in the clinical field.

QUALIFYING YEAR (non-nurses entering with B.A. or B.Sc.)

Nursing 573-511D. Practice of Nursing - Part I
Nursing 573-507B. History and Development of Nursing
Nursing 573-512C. Practice of Nursing - Part II

Two electives from the medical sciences, to be selected in consultation with adviser.

Students must complete all requiremens for entrance and for the Qualifying Year prior to enrolling in the Master's Program paper. Fees are as listed above for first year Master's students.

4.3 DESCRIPTION OF COURSES

GRADUATE PROGRAM

573-611D SEMINAR IN THE PRACTICE OF NURSING. A study of the practice of nursing through investigation and analysis of experiences in the clinical field. This study provides the method for expanding the role of the nurse and for evolving problems of research which are significant in nur-

sing and critical to health care. Emphasis is placed on the development of knowledge and skills in family health care and specialization in one of several areas of nursing. (6 hour seminar with field experience concurrently and throughout the month of May; additional clinical experience is arranged for the non-nurse students).

573-612A RESEARCH METHODS IN NURSING. The application of the scientific method to the study of selected problems of health, health care and health care delivery of particular relevance to nursing. Exercises and group discussions will focus upon techniques appropriate to the construction and execution of surveys, experimental designs in social settings, and content analyses appropriate to descriptive data. (3 hour seminar with concurrent field and laboratory experience).

573-615B HEALTH CARE EVALUATION. An evaluation of educational and health care systems with particular reference to the nursing input in problems of health, health care and health care delivery. Evaluative research includes qualitative and quantitative approaches to assessing health status and quality of care. (3 hour seminar with concurrent field and laboratory experience).

573-623A CLINICAL ASSESSMENT AND THERAPEUTICS. Prerequisites: Pathology 546-300B; Physiology 522-201A, 202B or equivalent. This course is intended to survey common illnesses confronting nurses in the community and in acute care settings. It will provide a systematic way of organizing knowledge related to the recognition, management and prevention of these problems. Integrated throughout will be instruction in history taking, physical assessment, and interpretation of laboratory data. (2 hours lecture and 3 hours laboratory weekly).

573-711D STUDY OF PROBLEMS IN THE PRACTICE OF NURSING. An investigation of some of the critical nursing problems in the student's field of inquiry including extensive assessment, experimentation and evaluation of differing nursing approaches in response to particular situations. (6 hour seminar with concurrent field experience).

573-712D RESEARCH IN NURSING AND HEALTH CARE. A study of research in Nursing and in the broad health care field. There is systematic examinationof the nature of problems including available knowledge, trends and directions in research, and problems of method, measurement, validity, etc. A major research project is a requirement of this course. (6 hour seminar with concurrent field and laboratory experience).

573-763A TEACHING OF NURSING. An examination of how students learn to nurse and the implications of this for teaching, evaluation and curriculum planning. The relation of research in learning and in education to the preparation of the nurse is examined. (3 hour seminar with concurrentfield experience).

573-764B PRACTICUM IN THE TEACHING OF NURSING. Laboratory and field experience in teaching including curriculum planning and administration of a program. (3 hour seminar with concurrent experience).

573-772A DEVELOPMENT AND MANAGEMENT OF NURSING SERVICES. An investigation of the implications of research in nursing, in learning, and in organizational behaviour as related to the assessment, development and management of nursing personnel and health care services. (3 hour seminar with concurrent field experience).

573-773B PRACTICUM IN THE DEVELOPMENT OF NURSING SERVICES. Laboratory and field experience in the management of individual patient care and family health in a variety of settings within the health care delivery system for the purpose of improving the quality of service through development of the nursing potential and the evaluation of care. (3 hours seminar with concurrent field experience).

QUALIFYING YEAR

573-511D PRACTICE OF NURSING – PART I. Learning to nurse people at selected stages in the life cycle in their homes and in acute care settings. Emphasis is placed on health, family, development of nurse-client relationships, and the nursing process. (3 hour seminar with 12 hours concurrent field experience weekly).

573-507B HISTORY AND DEVELOPMENT OF NURSING. A study of nursing within its social context with particular emphasis on the evolving function of nursing historically and in our rapidly changing society. (3 hour seminar).

573-512C PRACTICE OF NURSING – PART II. Learning to nurse adults in acute care settings, who are experiencing a variety of common illness-related problems. (3 hours seminar with 30 hours concurrent field experience in May, June).

For the description of other courses see the *Announcements* of the Faculties of Arts and of Science and of the Faculty of Graduate Studies and Research.

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If undeliverable, return to:

McGill University
The Registrar's Office
845 Sherbrooke Street West
Montreal, PQ, Canada, H3A 2T5

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McGill University
Montreal

Postgraduate Fellowships, Bursaries, Loans and Prizes

(Tenable in 1983-84)

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SERIALS DEPARTMENT

1982/1983 McGILL

1982-83 POSTGRADUATE FELLOWSHIPS, BURSARIES, LOANS AND PRIZES (Tenable in 1983-84)

McGill University
Montreal

Fellowships Office
Faculty of Graduate Studies and Research
Dawson Hall
853 Sherbrooke Street West
Montréal, PQ, Canada H3A 2T6

Associate Dean (Fellowships):
Room 310, phone (514) 392-5089.
Administrative Secretary:
Room 311, 392-5089.
Coordinator of Fellowships and Exchanges:
Room 312, 392-4322.

The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

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FINANCING POSTGRADUATE EDUCATION

There are three main ways to finance postgraduate studies at McGill: by winning fellowships or other awards for academic merit, by working as a teaching or research assistant, and by obtaining a grant or borrowing money from a provincial government. A postgraduate fellowship may be worth up to $9000 and many are renewable for four or five years. Fellowship holders must usually limit their additional income-producing work. Smaller awards based on academic merit may range in value from a scholarship for the amount of fees, down to prizes of less than $100. A winner of these smaller awards is not prevented from earning additional income. Bursaries are also available. They are award which take into account both academic merit and financial need. The details of the fellowships, bursaries and prizes available to students who want to undertake postgraduate studies at McGill comprise the bulk of this book.

ASSISTANTSHIPS

Most university departments require help from graduate students in conducting undergraduate classes and laboratories. The total work load is about 12 hours per week. The 1980-81 salary for a teaching assistant in the Faculty of Arts was approximately $4,500 plus tuition fees for the entire academic year. The values of assistantships in other faculties vary. Some departments can offer research assistantships, paid from research grant funds. In many cases the research can be used by students in the preparation of their thesis. When students hold both teaching and research assistantships, it is usual to adjust the income from each assistantship to assure a uniform level of support. In all cases the appointment of a student as a teaching or research assistant is recommended by the chairman of the department concerned on the basis of the documents supplied to the department along with the application for admission.

LOANS

Canadian citizens and landed immigrants can apply for a guaranteed student loan to the province or territory where they have resided for a year preceeding the application. The loans can be used for study at any university recognized by the law, not just those in the home province. These loans are interest-free and do not need to be repaid as long as the recipient is enrolled in a full-time course of study. The maximum yearly loan is $1,800. They can be accumulated over several years up to a maximum of $9,800, and the repayment period may extend 9½ years. Several provinces supplement the Canada Student Loan plan with bursaries, which are non-repayable donations based on financial need rather than on academic merit. Addresses on the provincial and territorial authorities who administer these programs are listed in the *Loans* section at the end of the booklet.

McGill administers funds from which loans can be made to graduate students. These loan funds are not available to finance the major part of a graduate education: they are contingency funds for unexpected situations of short duration. The names of these funds, the limiting conditions, and the application procedures are described in the *Loans* section of the booklet.

OTHER SOURCES OF INFORMATION

FELLOWSHIP PUBLICITY

When a fellowship announcement received by the Graduate Faculty concerns a particular department, it is forwarded to that department for posting or distribution. When the announcement is of general interest it is posted on the bulletin board on the third floor of Dawson Hall, alongside the counter of the Graduate Faculty Office.

Fellowship programs of general interest are described in the Graduate Faculty Newsletter distributed to all academic staff members of the Faculty of Graduate Studies and Research. Important programs are advertised in the McGill Daily, the McGill Reporter, and the Postgraduate Students' Society Martlet, and by posters in the main university buildings.

REFERENCE BOOKS

The Reference Department of the McLennan Library maintains an up-to-date collection of publications which list and describe scholarships and grants available for postgraduate work.

Scholarships, Fellowships, and Loans.

National Student Aid Information Service.

The Foundations Grant Index.

Directory of Research Grants.

Annual Register of Grant Support.

The Grants Register.

A Registry of Awards for Advanced Research in the Humanities.

Scholarships Guide for Commonwealth Postgraduate Students.

Study Abroad.

AWARDS FOR McGILL OR ELSEWHERE

If you are planning postgraduate studies at McGill, we suggest first that you apply for one of the provincial or federal fellowships in your field of study. These are among the most valuable fellowships awarded. The competitions in the following alphabetical list with the largest numbers of winners are the Social Sciences & Humanities Research Council Doctoral, the Social Sciences & Humanities Research Council Special M.A., the Medical Research Council, the Natural Sciences & Engineering Research Council and Quebec's FCAC fellowships. You should apply in whichever one or more of these competitions is appropriate to your eligibility and your field of studies. Most McGill postgraduate students will be eligible to apply in one or more of these competitions.

If you plan to study at another university you should write directly to that university to obtain information about awards for which you may be eligible. If you are planning to study at McGill, also read the part of *Awards for McGill* which deals with your particular area of study.

A.U.C.C. NATIONAL FELLOWSHIPS PROGRAM

The Association of Universities and Colleges of Canada administers several fellowships for graduate study at universities across Canada. In *most cases* the applicant must be a Canadian citizen or a landed immigrant for one year prior to application. Applications can be obtained from a common mailing address:

Awards Officer, National Fellowships Program
Association of Universities and Colleges of Canada
151 Slater Street
Ottawa, Ontario K1P 5N1

Here is a list of the fellowships currently offered through the A.U.C.C., along with the field of study and main restrictions for each. Deadline for applications in Ottawa is *usually December 1 and February 1.*

Fellowship	Field and Main Restrictions
Bell Canada Fellowship	All fields, M.A. level only, for residents of Bell Canada service area.
Consolidated Barthurst – Douglas Ltd. Fellowship	Employees and relatives of permanent, retired, or deceased employees.
Emergency Planning Canada Research Fellowship.	Open to Canadian citizens only. Acceptance into a Doctoral program is a prerequisite.
Frank Knox Memorial Fellowships at Harvard University.	To Canadian citizens only. In all disciplines.
Gulf Oil Canada Fellowship	Sciences related to the petroleum industry.
Lever Brothers Limited Bilingual Exchange Fellowship	M.B.A. exchange to a university of the other official language.
Department of National Defense Fellowship	Studies related to current and future Canadian national security problems.
Teleglobe Canada Fellowship	Studies related to international communications.

SOCIAL SCIENCES & HUMANITIES RESEARCH COUNCIL DOCTORAL FELLOWSHIPS

Value: $8,760. Fields: Social Sciences and Humanities. These categories extend to undertaking of an interdisciplinary nature, but not to those closely identified with the physical and biological sciences, or with professional training. *Applications:* Informative leaflets and application forms are obtainable from department offices in the social sciences, humanities, and related disciplines, from the Fellowships Office of the Graduate Faculty, or from: The Social Sciences & Humanities Research Council, P.O. Box 1047, Ottawa, Ont. K1P 5V8. *Due Date:* Completed applications should be returned to the Social Sciences & Humanities Research Council by November 15. McGill students have an earlier deadline (early November). Please verify with your *departmental* graduate officer that your McGill transcripts are on hand. *Eligibility:* Canadian citizens or those who have been landed immigrants for a year. Applicants must be enrolled in or have already completed *one year of graduate studies.*

SOCIAL SCIENCES & HUMANITIES RESEARCH COUNCIL SPECIAL M.A. FELLOWSHIPS

Value: $8,760. Eligibility: Canadian citizens who are *first class honours undergraduates* in the *arts, social sciences, or humanities. Application:* Candidates must ask a faculty member to nominate them. Nomination letters and application forms are available to candidates in the Fellowships Office, Faculty of Graduate Studies and Research *or* in your departmental graduate office. *Due Date:* in Ottawa is usually November 15.

CANADIAN FEDERATION OF UNIVERSITY WOMEN'S FELLOWSHIPS.

Value ranging from $600 to $5,000. Open to women who are citizens of Canada or who have held landed immigrant status for one year prior to submitting application.

For more information and application forms, please write to the Chairman of the Fellowships

Committee, Canadian Federation of University Women:

Before July 31, 1982 – Université de Montréal, C.P. 6128, Succ. A, Montréal, Qué. H3C 3J7.

After July 31, 1982 – Malaspina College, Wakesiah Campus 900 5th St., Nanaimo, B.C. V9R 1P9

Deadline for receipt of applications: Dec. 15, 1982.

CENTRAL MORTGAGE AND HOUSING CORPORATION GRADUATE FELLOWSHIPS

Fellowship stipends are $8,400 plus cost of travel from residence to place of study, university tuition fees and $1,344 for each dependant. Tenable in a broad range of fields involved in understanding and dealing with urban regional environment. Candidates must be recommended by the University and must be Canadian citizens or landed immigrants in Canada. Application forms and information are available from Administrator, Advisory Group, Central Mortgage and Housing Corporation, Ottawa. Deadline March 15 but candidates are urged to submit all documents to their department well before the end of February to provide the time needed by the university to process the application.

DELTA UPSILON MEMORIAL SCHOLARSHIP

Average value $5,000 (awards of lesser value may be made in certain cases). Founded by the McGill Chapter of the Delta Upsilon Fraternity in memory of its members who gave their lives in the Boer War, the Great War of 1914-18, and the Second War of 1939-45. Open to students who have received an undergraduate degree from McGill University in all faculties and tenable for graduate study at any recognized university. The necessary CGPA is 3.5 or above. Application forms are available in the Fellowships Office of the Faculty of Graduate Studies and Research, Dawson Hall, 853, Sherbrooke St. West, Montreal, (Québec) H3A 2T6. Completed applications must reach the Fellowships Office before *April 1.* Application must include details of qualifications; McGill student number; plans for graduate study, financial need, intended future career; and the names and complete address of two professors to whom you are forwarding the two form letters for recommendation. The usefulness to the community of the proposed studies, and the likelihood that the candidates will reflect credit on the University, will be taken into consideration.

DOW-HICKSON FELLOWSHIP IN PHYSICS

Endowed by the late Professor J.W.A. Hickson. Value $7,500. Tenable by a graduate of any approved university proceeding to a higher degree in any branch of Physics at McGill, or by a McGill graduate pursing such studies elsewhere. The holder may apply for a second year of tenure. Apply to the chairman of the Physics Department before February 1.

DOW-HICKSON FELLOWSHIP IN THEORETICAL PHILOSOPHY

Endowed by the late Professor J.W.A. Hickson. Maximum value $7,500 (awards of lesser value may be made in certain cases). Tenable by a graduate of any approved university proceeding to a higher degree in Theoretical Philosophy (Metaphysics, Epistemology, Logic, History of Philosophy) at McGill, or by a McGill graduate pursuing such studies elsewhere. The holder may apply for a second year of tenure. Apply to the chairman of the Philosophy Department before February 1.

FRANKI FELLOWSHIP IN SOIL MECHANICS

Value $4,250 plus $750 for research expenses, renewable once. Open to graduates of recognized Canadian universities, the University of British West Indies, the University of Quito,a and l'École Polytechnique de l'Université d'État en Haïti, in Agriculture, Engineering or Science. Awarded by Franki Canada Limited for the support of graduate studies in Soil Mechanics. Application should be made to Franki Canada Ltd. through the chairman of the department of Civil Engineering before April 1.

IMPERIAL OIL GRADUATE RESEARCH FELLOWSHIPS

Five fellowships of $7,000 renewable up to three years, offered by Imperial Oil Limited to graduates of approved Canadian universities for research leading towards a *Doctor's degree* at any approved university in the following fields:

Pure and Applied Natural and/or Exact Sciences, including Mathematics: Three fellowships.

Social Sciences and Humanities: Three fellowships.

Applications are forwarded by the university at which the undergraduate course was followed, and application forms can be obtained from the Fellowships Office, Faculty of Graduate Studies and Research sometime in December. Completed application must be submitted to the Coordinator, Graduate Research Fellowships, Imperial Oil Limited, 111 St. Clair Avenue West, Toronto, Ont., not later than *February 1.*

INSTITUT DE RECHERCHE EN SANTÉ ET EN SÉCURITÉ DU TRAVAIL DU QUÉBEC

Base Value $9,500 for first year Master's program. Base value $12,000 for first year Ph.D. program. The fellowships are awarded for one year and can be renewed a maximum of four times. Candidates must be Canadian citizens or permanent residents, domiciled in Quebec who wish to gain research training in the field of occupational health and safety in a laboratory setting or as a member of a recognized team. Application

deadlines: May 1 for January and January 15 for September. Apply to General Secretariat, Occupational Health & Safety Research Institute, Research Training, 505 Maisonneuve Blvd., West, Montreal, Quebec, H3A 3C2. Telephone 288-1551.

I.O.D.E. POSTGRADUATE SCHOLARSHIPS

The I.O.D.E. has established First and Second War Memorial Scholarships in order to perpetuate the memory of the men and women who gave their lives in World Wars I and II. Ten scholarships are offered annually to enable students to carry on studies in History, Economics, Constitutional Government or any subject vital to the interests of the Commonwealth. These awards are tenable in any university in Great Britain or in any part of the Commonwealth and are valued at $10,000 each. Scholarships tenable in a university in Canada are valued at $5,500. Candidates must be Canadian citizens holding a degree from a recognized university or degree-granting college in Canada and *must have done, or be doing postgraduate work* and be or have been registered in a Graduate School.
Application forms are available in the Fellowships Office, Faculty of Graduate Studies and Research sometime in November and must be submitted to the War Memorial Convener of the province where the applicant received the Bachelor's degree by December 1.

JOHN WILLIAMSON FREDERICK PEACOCK MEMORIAL SCHOLARSHIP

Average value $2,500, (awards of lesser value may be made in certain cases). Established in memory of Flight Lieutenant John Williamson Frederick Peacock, a member of the Delta Upsilon Fraternity, who was killed in action over Normandy in 1944.

The conditions of this scholarship are identical in all respects with those laid down for the Delta Upsilon Memorial Scholarship described above.

MacKENZIE KING OPEN SCHOLARSHIP

A one-year scholarship of $3,500, open to graduates of any Canadian university for full-time postgraduate studies in Canada or elsewhere and in any field. Applications may be obtained from the Awards Office, Room 50, General Services Administration Building, The University of British Columbia, Vancouver, B.C. V6T 1W5 and should be returned directly to the Mackenzie King Scholarship Trustees, who will select the winners.

Candidates must submit a *complete file* consisting of (a) transcripts of all post-secondary education, (b) two *sealed* letters of reference, and (c) a brief biographical sketch. Deadline for application is *15 February.*

MEDICAL RESEARCH COUNCIL STUDENTSHIPS

Value: $8,900. These awards are for students undertaking full time training in research in the health sciences leading to an M.Sc. or Ph.D. degree, or equivalent. Awards are primarily for Canadian citizens or landed immigrants. Applications forms are available from the office of the Associate Dean for Graduate Studies and Research, *Faculty of Medicine,* McIntyre Medical Sciences Building. Due date for receipt of applications in Ottawa is December 1. A second competition is held with a due date of April 1. Only one application per calendar year will be considered.

NATIONAL CANCER INSTITUTE RESEARCH FELLOWSHIPS

Fellowships from $3,500 to $8,000, plus allowance for dependent children, normally tenable in Canada, are offered in the field of cancer research to men or women graduates of approved universities. Apply on official forms to the National Cancer Institute of Canada, 25 Adelaide St. E., Toronto, Ont. by December 15.

NATIONAL HEALTH RESEARCH AND DEVELOPMENT PROGRAM (NHRDP)

Three categories of Research Personnel Training Awards available: 1) Short term Studentships, 2) M.Sc. Fellowships, 3) Ph.D. Fellowships, also Post-doctoral Fellowships. The NHRDP will only support candidates who seek research training in fields closely related to public health or health services research. For more information write to Extramural Research Programs Directorate, Health Services and Promotion Branch, Health & Welfare Canada, Ottawa, Canada, K1A 1B4.

NATURAL SCIENCE & ENGINEERING RESEARCH COUNCIL FELLOWSHIPS

Post-graduate awards to assistant students in undertaking graduate study and research, and post-doctorate fellowships for those wishing to add to their experience by specialized training. *Value: $9,350 to $18,700. Fields:* agriculture, biology, chemistry, computer science, physics, geology, physical geography, mathematics, engineering and experimental psychology. *Eligibility:* At the time of application for a Fellowship, an applicant must be either a Canadian citizen or if a landed immigrant, must have completed one full year of study and/or research at a Canadian university. *Application:* Forms are available in your department by the second week of October. Please verify with your *departmental* graduate officer that your McGill transcripts are on hand. Applications must be submitted to the students' department *early in November.*

FCAC FELLOWSHIPS

(Formerly Bourses de l'enseignement supérieur) Value: $5,000 to $14,000. *Eligibility:* Canadian citizens or landed immigrants who have been permanent residents of Québec for one year at the time of applications. Fields: All disciplines. Application: Information and application forms are available in each department, usually by mid-November, or in the Fellowships Office. There are special programs for students in management transportation and energy-related studies. There is also a special program for the arts. The deadline will not be announced until the fall, but is expected to be in December or January.

J.H. STEWART REID MEMORIAL FELLOWSHIP

Value: $4,500 for one year: winner may re-apply in open completion for additional years. *Field:* unrestricted, can be held at any Canadian university: *Eligibility:* Canadian citizen or landed immigrant. *Application:* Write to Awards Officer, Canadian Association of Univesity Teachers, 75 Albert Street, Suite 1001, Ottawa, Ont. K1P 5E7. The due date is usually early February.

SECOND LANGUAGE BURSARY PROGRAM

Canadian and landed immigrant students who attend a university where the language of instruction is different from their own may apply for these (French or English) fellowships worth $500 - $2,000. The deadline for application usually in May. Further information and application forms can be obtained from:

Direction générale
de l'enseignement supérieur
Ministère de l'Éducation
1035, rue de la Chevrotière
Québec, PQ, G1R 5A5

or

From the Office of the Coordinator of fellowships and exchanges, Room 312 Dawson Hall, Faculty of Graduate Studies and Research, in April.

SECOND-LANGUAGE MONITOR PROGRAM

Students who are willing to help teach French to English-speaking Canadians or *vice-versa,* outside the province in which they reside, can earn $3,000 plus up to $300 transportation costs, for part-time work as a second-language monitor in connection with post-secondary or post-graduate education. For example, a French-speaking New Brunswick resident may serve as a second-language monitor at McGill, while an English-speaking Québec resident from McGill might serve as a second-language monitor at the University of Ottawa. *Fields:* any. *Eligibility:* Canadian citizens or landed immigrants, who are enrolled in a post-secondary institution outside their province of residence. *Applications:* May be obtained from the provincial co-ordinator of the province in which you reside. Applications will be available after November 1 from the Provincial Coordinator of your province of residence and completed applications must be returned to the coordinator by December 31. The addresses of some of the provincial co-ordinators are listed below:

Québec:
M. Maurice Beaulieu
Conseiller linguistique
Ministère de l'Éducation
1035, rue de la Chevrotière
Québec, PQ, G1R 5A5

New Brunswick:
Mrs. Vivianne Edwards
Department of Education
Centennial Building
Fredericton, New Brunswick
E3B 5H1

Ontario:
Mr. D.S. Bethune
Ministry of Colleges and Universities
8th Floor - Mowat Block
Queen's Park
Toronto, Ontario
M7A 2B4

Manitoba:
Mr. J.A. Duhamel
Department of Education
512A 1181 Portage Avenue
Winnipeg, Manitoba
R3G 0T3

SUMMER LANGUAGE BURSARY PROGRAM

Under a joint agreement between the federal and provincial governments Summer Language Bursaries are offered to full time Canadian and landed immigrant students who wish to learn French or English in a 6 week immersion course during the summer. Students should write directly to:

M. Maurice Beaulieu
Coordonnateur-Bourses d'été
Ministère de l'Éducation
Centre administratif "G", 13e étage
1035, rue de la Chevrotière
Québec, P.Q. G1R 5A5

Inquiries should be made in January or February of the year in which the bursary is desired.

TRANSPORT CANADA FELLOWSHIPS

This federal agency offers postgraduate fellowships for the support of thesis research in a broad range of fields related to transportation. Value: Ranging from $9,000 to $10,000. The fellowship may be held for one year while studying for the Master's degree, and renewed up to a maximum of two times while studying for the Ph.D. *Fields:* work relating to any aspect of

transportation. *Eligibility:* Canadian citizens or landed immigrants; only citizens may hold the fellowship outside Canada. *Applications:* Forms may be obtained from the Fellowships Office, Faculty of Graduate Studies and Research or from Strategic Policy Branch (TUP), Transport Canada, Tower "C", Place de Ville, Ottawa, Ontario, K1A 0N5. The due date varies, but will be in *early January.*

AWARDS FOR McGILL

The Friends of McGill, Saul Hayes, Harold Helm, J.W. McConnell Memorial, Max Bell "Open", Solvay, David Stewart Memorial, Arthur C. Tagge and the Graduate Faculty Summer Fellowship programs are administered by the McGill University Graduate Faculty Fellowships Office. Students who apply for a fellowship on a McGill fellowship application form sent directly to the Fellowships Office before February 15, will be considered for any of these fellowship programs for which they are eligible. These do NOT include the fellowships for a limited field of studies which are awarded on the recommendation of schools or departments in the University and do NOT include the major fellowship programs offered by the Canadian or Québec governments.

N.B.:
Application forms for the following major fellowship programs are sent to all McGill *departmental* graduate offices.

McGill Graduate Faculty Fellowship programs in all disciplines. Forms available sometime *in October.*

Natural Sciences & Engineering Research Council Scholarships in the fields of agriculture, biology, chemistry, computer science, physical geography, geology, mathematics, physics, engineering and experimental psychology. Forms available in these departments sometime *in October.*

Québec bourses de l'enseignement supérieur graduate fellowships in all disciplines. Forms available after *December 15* in your department.

Social Sciences & Humanities Research Council Canada fellowship program (Special M.A. and Doctoral fellowships). Forms available in the social sciences and humanities departments early *in October.*

McGill transcripts (3 sets) are sent to all departmental graduate offices for all U3 students with a C.G.P.A. of 3.0 or higher and for all graduate students for the above-mentioned fellowship programs. Candidates should contact their department for more information at least three weeks before the deadline for each competition.

SEVERAL FACULTIES

MAX BELL FELLOWSHIP FOR CANADIAN STUDIES

Value: $6,000. Six fellowships are awarded each year, and they may be renewed for subsequent years in competition with other applicants. Three are awarded to students in Canadian Studies, three to students in Northern Studies. Application forms are available in the Centre for Northern Studies or in the Graduate Faculty Fellowships Office. Completed applications must reach the Chairman, Canadian Studies Interdisciplinary Seminar Program, *or* the Director, Centre for Northern Studies, by *February 15.*
(N.B.: The Max Bell Fellowship Program in Canadian Studies is different from the Max Bell "Open" Fellowship Program; two different application forms must be completed by eligible candidates.)

ALMA MATER FELLOWSHIPS

(McGill major award program)

Value $7,000. Established in 1982 by generous contributions to the Alma Mater Fund from many graduates who designated their gifts to the area of scholarships and student aid. Open to students entering any degree program in the Faculty of Graduate Studies and Research. Renewable once.

CLIFFORD WONG FELLOWSHIP

(McGill major award)

Value: $8,000 plus tuition fees. Founded in 1981 by Mr. Clifford Wong, B. Arch. 1960, to enable a graduate student to pursue studies towards a higher degree at McGill University. First preference will be given to students coming from Mainland China and second preference to students coming from Hong Kong. In the absence of suitable candidates from these two regions, the fellowship would be available to suitable candidates from any country.

FRIENDS OF McGill FELLOWSHIP

(McGill major award program)

Value: $5,000. Open to graduate student in any discipline who is a citizen of the United States of America. The fellowship is made available through the McGill Development program by the Friends of McGill, Inc., New York. Applications may be obtained from the Fellowships Office of the Faculty of Graduate Studies and Research. No application forms will be mailed by the Fellowships Office after January 31. Apply on the McGill standard fellowship application form to the Faculty of Graduate Studies and Research by *February 15.* Application forms are available in all McGill graduate offices sometime in October. Candidates will be notified of the results of the competition during the month of May.

THE GREVILLE SMITH RESEARCH FELLOWSHIP

(McGill major award program)

Two research fellowships valued at $7,500 each. Endowed by the Trustees of the Greville Smith bequest for research by graduate students in the fields of Engineering and Management, respectively, and tenable for a maximum of three years. The leadership qualities of the candidate, together with the usefulness to the community of the proposed study, is taken into consideration by the Graduate Faculty Fellowships Committee in their choice of fellows.

SAUL HAYES GRADUATE FELLOWSHIP

(McGill major award)

Value ranging from $7,500 to $8,500. Established by Edgar and Charles Bronfman in memory of Saul Hayes, for graduate students in the areas of Civil Liberties and Human Rights, and tenable for up to four years. Apply on the McGill standard fellowship application form. These forms may be obtained from the Fellowships Office of the Faculty of Graduate Studies and Research *or* from your *departmental* graduate office. No application forms will be mailed by the Fellowships Office after January 31. Completed forms must reach the Fellowships Office before *February 15.* Candidates will be notified of the results of the competition during the month of May.

HAROLD H. HELM FELLOWSHIPS

(McGill major award program)

Tenable by holders of a bachelor's degree from Princeton University for post-graduate study in any subject at McGill. Value $5,000. Normally non-renewable, but may be renewed for a second year in exceptional circumstances. Requests for applications for the "Helm Fellowship" should be made to the McGill Graduate Faculty Fellowships Office. Completed applications should be received in your department before *February 15,* and candidates will be notified of the results of the competition during the month of April. No application forms will be mailed by the Fellowships Office after January 31.

MAX BELL "OPEN" FELLOWSHIPS

(McGill major award)

Value: $6,000. Ten fellowships are awarded each year, and they may be renewed for subsequent years in completion with other applicants. No citizenship restrictions. The fellowships may be held by students registered in any postgraduate program at McGill (except Medicine). Application forms may be obtained from the Fellowships Office of the Faculty of Graduate Studies & Research *or* from your *departmental* graduate office. No application forms will be mailed by the Fellowships Office after January 31. Completed forms must reach the department before *February 15.* Candidates will be notified on the results of the competition during the month of April.

(N.B.: The Max Bell "Open" Fellowship Program is different from the Max Bell Fellowship Program in Canadian & Northern Studies; two different applications forms must be completed by eligible candidates).

J.W. McCONNELL MEMORIAL FELLOWSHIPS

(McGill major award program)

These fellowships were established by the J.W. McConnell Foundation to support postgraduate studies and research at McGill University, and so to strengthen, in qualify and in numbers, the academic staffs of Canadian universities and schools. The fellowships may be held by students registering in any postgraduate research program *(except Medicine)* at McGill who are Canadian citizens or landed immigrants. The value of a first-year award is $6,000. The initial award is normally for a period of two years, but the fellowships are intended to carry a student through a doctoral degree, and may normally be held up to the fifth year of a doctoral program (and for not more than five years). Fellows will be expected to spend the full calendar year (with the exception of a month's summer holiday) on their studies, and may not accept any remunerative appointment during the tenure of the fellowship without permission. Application forms may be obtained from the Fellowships Office of the Faculty of Graduate Studies and Research or from your *departmental* graduate office. No application forms will be mailed by the Fellowships Office after January 31. Completed forms must be returned to the department before *February 15.* Candidates will be notified of the results of the completion during the month of April.

SOLVAY FELLOWSHIP

(McGill major award)

Value $5,000, offered for the first year of study in the Faculty of Graduate Studies and Research. Tenable in any Department of the Faculty, and open to men and women equally. The holder must have graduated in any undergraduate faculty of McGill in the session prior to that for which the award is given, and must obtain permission to proceed to graduate study. Application should be made on the McGill standard fellowship application form. Deadline is February 15. Candidates will be notified of the results of the completion during the month of April. No application forms will be mailed by the Fellowships Office after January 31.

SUMMER RESEARCH FELLOWSHIPS

(McGill summer fellowship program)

These awards are made so that the recipients can continue their research through the summer. The value is $1,000. Deadline for applications is *February 15,* and winners are announced during the month of April. Application should be made on the standard fellowship application form. Students who are currently registered at McGill and who do not hold a major fellowship ($4,000 or more) can apply. The **McConnell Foundation** and the **Faculty of Graduate Studies and Research** support this program. Additional funds are provided to students from outside Canada or the U.S.A. by the **Max Binz Foundation.**

AGRICULTURE AND THE BIOLOGICAL SCIENCES

T.W.M. CAMERON AWARD IN PARASITOLOGY

A book prize for Excellence in Parasitology, demonstrated in the course of study at the Institute of Parasitology. Open to all M.Sc. and Ph.D. candidates in Parasitology. Nominations by the Director of the Institute of Parasitology after appropriate consultation.

PHILIP CARPENTER FELLOWSHIP IN BIOLOGY

Value $4,000, established in 1892 by Mrs. Phillip P. Carpenter to provide "a postgraduate teaching fellowship or scholarship in Natural Science or some branch thereof in the Faculty of Arts of McGill College. No application necessary. The Department takes the appointment from its current cadre of Demonstrators.

LYNDEN LAIRD LYSTER AWARD IN PARASITOLOGY

Value approximately $3,500. Open to candidates for M.Sc. or Ph.D. degrees at the Institute of Parasitology. Nomination for the award is made by the Director of the Institute after appropriate consultation.

SIR VINCENT MEREDITH FELLOWSHIP IN AGRICULTURAL ECONOMICS

$2,500 per year, tenable for a two-year period. Candidates must qualify for graduate work in Economics at the Ph.D. level and must pursue research of thesis work on an approved subject in the area of Agricultural Economics. Limited teaching or other duties are required. Apply to the Department of Agricultural Economics, Macdonald College, PQ H0A 1C0, before February 1.

DAVID STEWART MEMORIAL FELLOWSHIP

(McGill major award)

Four fellowships, two in the Biological Sciences and two in the Physical Sciences have been established by a bequest of the late Miss Agnes Stewart in memory of her father, the late David Stewart. Awarded to candidates who demonstrate ability of a high order and who are likely to enter a career of univesity teaching. Value $7,500 for students in the upper years. Awarded for one year only but holders may apply for renewal. Application should be made on the McGill standard fellowship application form. Deadline is February 15. Candidates will be notified of the results of the competition during the month of May. No application forms will be mailed by the Fellowships Office after January 31.

WALTER M. STEWART POSTGRADUATE SCHOLARSHIP IN AGRICULTURE

Awards totalling $4,000 from a fund established by the late Walter M. Stewart. To be awarded annually to students studying at the postgraduate level at Macdonald Campus. Preference will be given to graduates from Québec Universities. If there are no suitable candidates at the postgraduate level in a particular year, the $4,000 will be awarded to undergraduate students in the Faculty of Agriculture who have achieved high academic standing.

ARTHUR WILLEY MEMORIAL FELLOWSHIPS

Value $1,000. To be awarded on the recommendation of the Biology Department. No application necessary.

EDUCATION

COLL McFEE MEMORIAL SCHOLARSHIP

Established in 1968 from a bequest of the late Miss Julia Beatrice Anderson McFee in honour of her father, Coll McFee and her brother, Malcolm Charles Coll McFee, B.A. (1905), B.Sc. (1908), M.Sc., to a graduate student proceeding to the Master of Ecuation (Chemistry) degree, or if a meritorious candidates does not apply, to a graduate of the McGill Chemistry course who is proceeding to an M.Sc. or Ph.D. degree in the Department of Chemistry. Send applications to the Chairman, Department of Chemistry, before June 1.

IRVING ORRIN VINCENT BURSARY

Established by Mrs. J.B. Owen in memory of her father, the late Irving Orrin Vincent, B.A. 1907, M.A. 1908, a noted teacher and Principal of Edward VII School in Montreal from 1912 until his death in 1920. Awarded annually by the Student Aid Office on the basis of academic merit and financial need to a graduating student in the Faculty of Arts proceeding towards an M.A., M.Ed., or Doctorate in Classics or Education.

HUMANITIES AND THE SOCIAL SCIENCES

NATHAN BRECHER FELLOWSHIP IN ECONOMICS AND POLITICAL SCIENCE.

Value $1,500. Founded by a bequest of the late Nathan Brecher for the purpose of enabling a graduate student of academic distinction in Economics and Political Science to continue studies towards a higher degree at McGill University. Awarded by the Graduate Faculty on the recommendation of a joint committee of the departments of Economics and Political Science.

BRONFMAN FELLOWSHIPS IN ECONOMICS

The Faculty of Graduate Studies and Research offers two fellowships of $2,000 each plus tuition fees to men and women, preferably with research experience, who are graduates in Economics from accredited universities. The holders are entitled to apply again in a subsequent year, will be excpected to be in residence at McGill throughout the academic session, and to be candidates for a higher degree at McGill. A little teaching work may be required. Awarded on the recommendation of the Department of Economics. No application necessary.

GUY DRUMMOND SCHOLARSHIP IN POLITICAL SCIENCE AND ECONOMICS

Originally endowed by the late Guy M. Drummond, awarded to a graduating student in the Faculty of Arts nominated jointly by the Departments of Economics, Political Science and the Department of French Language and Literature, taking into account the students' academic record and the likelihood that they will make a contribution of value to Canadian life. The nominee must be taking the honours course in Political Science or joint honours in Economics and Political Science. The award is made on the recommendation of departments and cannot be applied for by the candidate. The value is $6,700 plus tuition fees at McGill and such tuition fees in Paris as may be approved by the Faculty of Graduate Studies and Research. $4,500 of this covers a year of study in Paris plus approved tuition fees in Paris and registration fees at McGill and the remaining $2,200 plus tuition fees is for a further year at McGill studying for the M.A. degree. In Paris, the recipients study at the Institut d'Études Politiques unless they wish to specialize in Economics rather than Political Science and are permitted by McGill to study at the Institut d'Économie Appliquée.

MARY KEENAN SCHOLARSHIP IN ENGLISH

Value $200, awarded by the Department of English to a student proceeding at McGill from the B.A. to the M.A. in English. The need and ability of the student are considered.

SAMUEL LAPITSKY SCHOLARSHIP

Value: tuition fees. To be awarded on the recommendation of the Departments of Sociology or Anthropology (each in alternate years). Apply to the Departments of Sociology, in *even years*, OR Anthropology in *odd* years, before February 1.

PAUL F. McCULLAGH POSTGRADUATE BURSARIES IN CLASSICS

Two awards. Value $400 each, to be awarded annually on the basis of academic merit and need to a student pursuing the study of Greek Literature and a student pursuing the study of Latin Literature.

SEAGRAM BUSINESS FELLOWSHIP

See alphabetical listing under *Management*.

ALEXANDER MacKENZIE FELLOWSHIP IN POLITICAL SCIENCE

Value $2,000, plus tuition fees. Tenable by a graduate of any accredited university, conditional upon acceptance by the Faculty of Graduate Studies and Research in the field of Political Science. A certain amount of tutorial and teaching work is required. Under certain conditions, after consultation with the Department of Political Science, this fellowship may be held for a second or third year. Each candidate should sent (i) a letter of application, (ii) a certified copy of his or her academic record, (iii) not more than three testimonials, to the Department of Political Science before February 1.

SIR VINCENT MEREDITH FELLOWSHIP IN AGRICULTURAL ECONOMICS

See alphabetical listing under *Agriculture and the Biological Sciences*.

NEWCOMEN AWARD

The Newcomen Society in North America offers a prize of $200 known as the Newcomen Award for a student at McGill who writes an outstanding paper on some facet of Industrial History. Entries must be submitted to the Chairman of the Department of Economics on or before April 1.

ARTHUR C. TAGGE FELLOWSHIP IN THE HUMANITIES AND SOCIAL SCIENCES

(McGill major award)

Value $5,000. Tenable by a graduate of any approved university proceeding to a higher degree in any Department of the Humanities or the Social Sciences. Normally awarded for the first year of graduate study and not renewable, but exceptions may be made. Outstanding students in the last year of the undergraduate course, at McGill or elsewhere, should apply on the McGill standard fellowship application form before

February 15. Candidates will be notified of the results of the competition during the month of May. No application forms will be mailed by the Fellowships Office after January 31.

IRVING ORRIN VINCENT BURSARY

See alphabetical listing under *Education.*

PRIZE OF THE AMBASSADOR OF YUGOSLAVIA IN CANADA

A book prize for the best student in the language, literature or civilization of one of the peoples of Yugoslavia (principally Serbo-Croatian). Open to undergraduate or graduate students and awarded on the recommendation of the Department of Russian and Slavic Studies.

LAW

DUFF-RINFRET SCHOLARSHIP

To commemorate the 100th anniversary of the founding of the Supreme Court of Canada, celebrated in 1975, the Department of Justice is offering seven Master's programme scholarships to qualified students in Canadian law schools. These scholarships are designated as the Duff-Rinfret Scholarships in honour of two former Chief Justices of the Supreme Court of Canada who were distinguished representatives of this country's two legal systems. The goal of this programme is to promote legal research in Canadian law schools in areas within the jurisdiction of the federal government. Any person who is in the final year of an LL.B. programme at a Canadian law school or who already has obtained an LL.B. degree granted by a Canadian university may submit an application, provided that they intend to follow a course of studies or research in an area of law under federal jurisdiction and that they enrol in a Master's program offered by a Canadian law school. Value, $9,000, tuition fees, travel allowance and a thesis allowance of $800. Apply by early January. For further information write to: Director, Programs and Law Information, Development Section, Justice Building, Department of Justice, Ottawa, Ontario, K1A 0H8.

EDWIN BOTSFORD BUSTEED SCHOLARSHIP

Founded by the will of the late Mrs. Busteed in memory of her husband, Edwin Botsford Busteed, K.C., B.A., B.C.L. (1879), this scholarship will be awarded to an applicant, chosen by the Faculty, who desires to carry out graduate research on some subject connected with the law of Québec and approved by the Faculty. The value of the scholarship is approximately $2,500 and can be used to supplement funds for graduate studies already received from other sources. Candidates shall make application for this scholarship to the dean.

LIBRARY SCIENCE

LIBRARY SCIENCE FELLOWSHIPS

Beta Phi Mu Scholarships

The international Library Science Honor Society offers a scholarship with a value of $1,000 to a student at the Master's level accepted in a program accredited by the American Library Association. Application forms are available from the Executive Secretary, Beta Phi Mu, Graduate School of Library and Information Sciences, University of Pittsburgh, Pittsburgh, PA. 15260. Deadline for application is March 1.

Canadian Library Association Scholarships

A number of scholarships are available to students in accredited library schools. Information and application forms are available from the Scholarships and Awards Committe, Canadian Library Association, 151 Sparks Street, Ottawa, Ontario K1P 5E3.

Financial Assistance for Library Education

American students are advised to write to Scole (Standing Committee on Library Education) American Library Association, 50 East Huron Street, Chicago, Illinois 60611, for a copy of *Financial Assistance for Library Education.*

NATURAL SCIENCES & ENGINEERING RESEARCH COUNCIL SCHOLARSHIPS IN LIBRARY SCIENCES.

In cooperation with the Advisory Board for Scientific and Technological Information, NSERC offers a limited number of scholarships to assist science or engineering graduates to obtain advanced degrees in the fields of science librarianship and documentation. The awards are made on the basis of high scholastic achievement and evidence of suitability for a career as a science librarian or science information specialist. Applicants must be Canadian citizens or landed immigrants. All communication regarding these scholarships should be addressed to: The Scholarship Officer, Office of Grants and Scholarships, Natural Sciences & Engineering Research Council of Canada, Ottawa, Ont. K1A 0R6. Application must be filed not later than December 1.

SPECIAL LIBRARIES ASSOCIATION SCHOLARSHIPS

The *Special Libraries Association* offers up to three $3,000 scholarships for graduate study leading to a master's degree at a recognized school of library or information science in the United States or Canada. College graduates or college seniors (citizens of the U.S. or Canada) with an interest in special librarianship are eligi-

ble. Work experience in a special library is helpful. Further information and application forms may be obtained by writing to the Special Libraries Association, Scholarship Committee, 235 Park Avenue South, New York, N.Y. 10003. Applications must be filed by Janary 15.

Applicants accepted for admission to the program leading to the degree of Master of Library Science and students entering the second year of the program may apply to the Director of the School before March 1 to be considered for the following awards which are made, after due investigation and recommendation, to deserving students who require financial assistance.

JANET AGNEW SCHOLARSHIP IN THE GRADUATE SCHOOL OF LIBRARY SCIENCE

Value: $250. Established from a bequest of the late Janet M. Agnew, a graduate of and former instructor in the School.

AMUL AWARD IN LIBRARY SCIENCE

Value $250 established by the Association of McGill University Librarians (AMUL). To be granted to a student admitted to the first years program of the Graduate School of Library Science. To be eligible, applicants must be presently employed full-time library, assistants who will have completed two years' continuous full-time employment with the McGill University Library System before the deadline for application March 1.

L'ASTED (l'Association pour l'avancement des sciences et des techniques de la documentation) décerne chaque année une bourse à un étudiant de 2ième année de maîtrise en bibliothéconomie (McGill ou Montréal). Pour de plus amples renseignements, écrire à L'ASTED, 360, rue LeMoyne, Montréal, Québec H2Y 1Y3.

ETHELWYN M. CROSSLEY SCHOLARSHIP FUND

$400 from the fund founded in honour of a former student of the School.

SYRA DEENA TARSHIS FLEISHMAN BURSARY

$200 from the fund founded in memory of a former student of the School.

ELIZABETH G. HALL SCHOLARSHIP FUND

$400 from the fund founded in honour of a former member of the McGill University Library staff.

PATRICIA KEIR AWARD IN LIBRARY SCIENCE

Value $400 from a gift by Patricia Keir to be awarded annually to a first year Library Science student in the area of Archival Science who intends to study in the area of Rare Books.

DR. G.R. LOMER SCHOLARSHIPS

Three annually of $660 each in honour of the late Dr. G.R. Lomer, a former Director of the School.

H.W. WILSON FOUNDATION FELLOWSHIP

A grant in the amount of $3,000 made on a rotating basis to schools with graduate library programs accredited by the American Library Association, for distribution as scholarship aid in amounts and manner considered appropriate by the schools. McGill received a grant in 1982.

Awards

VIRGINIA MURRAY PRIZE FOR CATALOGUING

Awarded to the student in M.L.S. I who obtains the highest grade in the Organization of Materials course.

MONTREAL CHAPTER SPECIAL LIBRARIES ASSOCIATION PRIZE

Awarded to the student in M.L.S. II who obtains highest standing in Special Librarianship.

MANAGEMENT

BRONFMANN FELLOWSHIPS IN ECONOMICS

See alphabetical listing under *Humanities and the Social Sciences.*

CANADA TIRE CORPORATION LIMITED SCHOLARSHIP

An annual award of $1,000 made to a student entering the M.B.A. program. Renewable for a second year if the candidate remains in good standing. Awarded by the Faculty of Management Scholarships Committee: no application necessary.

EATON FOUNDATION FELLOWSHIP

Value $2,500. Awarded on the basis of academic merit to a student entering the M.B.A. program and renewable for a second year if satisfactory academic standing is maintained. Preference will be given to Canadian citizens and landed immigrants. Awarded by the Faculty of Management Scholarships Committee.

H.E. HERSCHORN GRADUATE SCHOLARSHIP

Established in 1965, covering the amount of the current tuition fees and tenable by a student entering either the First or the Second year of the M.B.A. program. Apply to the Admissions Officer, Faculty of Management.

McGILL ASSOCIATES MEDAL FOR GREAT DISTINCTION IN THE MBA PROGRAM

Established by the McGill Associates, a sterling silver medal will be awarded each Spring to the

leading student in the full-time MBA program.

The medal will be awarded by the Scholarships Committee of the Faculty of Management. No application is necessary.

RODGIE McLAGAN FELLOWSHIPS IN MANAGEMENT

Two fellowships of $1,500 each have been established by Canada Steamship Lines for graduate study in management. Application forms must be completed and returned to the Admissions Officer, Faculty of Management, by August 1.

XEROX CANADA INC. FELLOWSHIP IN MANAGEMENT

Value $2,000, established as a centennial project by Xerox of Canada Inc. to encourage management studies at the graduate level. Open to students in the M.B.A. program and awarded by the Scholarships Committee of the Faculty of Management. Apply to the Admissions Officer, Faculty of Management.

MEDICINE AND THE MEDICAL SCIENCES

SIR EDWARD W. BEATTY MEMORIAL SCHOLARSHIPS FOR MEDICAL STUDENTS

Two scholarships, not necessarily of equal value, awarded annually to students of any nationality. Open to (i) students registered in the McGill Faculty of Medicine as candidates for the M.D., C.M. degree, (ii) graduates of an accredited Faculty of Medicine registered for postgraduate degrees, (iii) graduates of an accredited Faculty of Medicine registered for postgraduate diploma in a clinical specialty, (iv) graduates of an accredited Faculty of Medicine who are employed in a year of research as part of their residency training program. For students who hold or are working towards the McGill M.D., C.M. the award may be held at any approved institution in Canada or abroad. For other qualified students the award must be held at McGill. Holders are expected to devote their year of tenure either to research or to some form of special training excluding the normal training towards the M.D., C.M. and excluding any of the years of residency training required in the Diploma courses. Awarded by the Faculty of Medicine but not unless suitable candidates present themselves. Apply to the Associate Dean, Graduate Studies and Research, Faculty of Medicine, on the forms provided for this purpose on or before February 1 of the year in which the scholarship is to commence.

IRMA H. BAUER RESEARCH FUND

The income from a bequest by the late Irma H. Bauer to be used for the support of a student doing research in the field of epilepsy.

A.A. BROWNE MEMORIAL FUND

This fund of $10,000 is used either for a fellowship to be known as the "A.A. Browne Memorial Fellowship", or for a grant to a department to provide technical assistance, equipment, and supplies for medical research. The fellowship is open to graduates of any recognized medical school and is for the advancement of medical science, especially in Obstetrics and Gynaecology. Apply to the Associate Dean, Graduate Studies and Research, Faculty of Medicine.

HUGH E. BURKE RESEARCH FUND

Established in 1972 for medical research with preference given to requests for financial assistance. Awarded by the Postgraduate Committee, *Faculty of Medicine.*

G. RUTHERFORD CAVERHILL FELLOWSHIP

Established in 1943 by Mrs. Rutherford Caverhill; approximate value $1500 for postgraduate study and training in the Department of Medicine. Awareded by the Postgraduate Committee, *Faculty of Medicine.*

J.P. COLLIP FELLOWSHIP IN MEDICAL RESEARCH

Up to three fellowships of $6,000 each are awarded for study at McGill in Anatomy, Bacteriology, Biochemistry, Histology, Pathology, Pharmacology, or Physiology. Candidates must hold the M.Sc. or Ph.D. in one of these subjects, or a degree in medicine, from a recognized university. Graduates of the McGill medical faculty may be permitted to hold the fellowship at an approved institution elsewhere. Apply before February 1 to the Associate Dean, Graduate Studies and Research, *Faculty of Medicine,* sixth floor in the McIntyre Medical Bldg., from whom application forms and further particulars may be obtained.

JAMES COOPER ENDOWMENT FOR THE STUDY AND TEACHING OF INTERNAL MEDICINE

The income from a bequest by the late James Cooper is used for fellowships or for grants to departments to provide technical assistance, equipment, and supplies for medical research.

JAMES DOUGLAS FELLOWSHIP IN PATHOLOGY

The income from a donation of $25,000 by the late Dr. James Douglas, is devoted to coordinated research in the laboratories of pathology in or associated with the University.

RICHARD COLLIER FITZGERALD FUND

The income from a bequest by the late Mr. Frederick D. FitzGerald is used for fellowships or for grants to departments to provide technical

assistance, equipment and supplies for medical research, especially on the subject of cancer.

GEDDES PRIZE IN BIO-MEDICAL ENGINEERING

Dr. L.A. Geddes, B.Eng. 1945, M.Eng. 1953, Hon. D.Sc. 1971, has offered to establish an annual prize of $100 in the Biomedical Engineering Unit. In accordance with the recommendations of the Unit, this prize will be awarded for excellence in Biomedical Engineering and will be awarded at the discretion of the Director of the Biomedical Engineering Unit.

GEORGE G. HARRIS FELLOWSHIP IN CANCER

Established in 1962 by a bequest of George G. Harris to provide a fellowship in Cancer Research. Awarded on the recommendation of the Postgraduate Awards Committee, *Faculty of Medicine.*

PERCY HERMANT FELLOWSHIPS IN OPHTHALMOLOGY

These fellowships of $1,500 each have been established by Mr. Percy Hermant. Normally two are awarded each year. Candidates must be graduates in Medicine of McGill or other approved medical schools, must be commencing the study of Ophthalmology at McGill and must be planning to practise this specialty in Canada. Apply to the Chairman, *Department of Ophtalmology,* McGill University.

BLANCHE HUTCHINSON RESEARCH FUND

The income from a bequest from the late Mrs. Frank L. Hutchinson is used for Fellowships, or for grants to departments to provide technical assistance, equipment, and supplies for medical research.

ISAAK WALTON KILLAM SCHOLARSHIPS

Established in 1966 by a generous bequest to the Montreal Neurological Institute by the will of the late Mrs. Dorothy Killam, for advanced study in the fields of Neurology, Neurosurgery and the related basic disciplines. Value $6000 – $15,000 depending on the candidate's qualifications. Apply in writing to the Director of the Montreal Neurological Institute by March 1.

SAMUEL LUPOVICH MEMORIAL SCHOLARSHIP

Of the approximate value of $400, open to graduates of any approved medical school who are principally engaged in research upon the physiology of the blood, or its diseases. Apply to the Associate Dean, Graduate Studies and Research, Faculty of Medicine, by February 1.

JOSEPH McABBIE SCHOLARSHIP

$1,000, established by a bequest from the late Joseph McAbbie for research on asthma and asthmatic bronchitis. Apply to the Associate Dean, Graduate Studies and Research, Faculty of Medicine, by February 1.

JOHN McCRAE FELLOWSHIP

Approximate value of $5,000 for (1) graduates of any approved medical school who are candidates for the Diploma in Surgery, Urology, Otolaryngology, Radiology, etc., or (2) McGill graduates in Medicine, or (3) graduates of any approved medical school proceeding towards a McGill M.Sc. or Ph.D. in fields related to Surgery, etc. In all cases, the holder is expected to spend twelve months in full-time laboratory or clinical research at McGill or an approved institution elsewhere. Apply to the *Dean of the Faculty of Medicine,* sixth floor in the Medical Sc. Bldg., not later than April 1, with a letter of recommendation from a member of the teaching staff, transcript of the undergraduate record, and description of the proposed research naming the institution selected and its director. Tenure should commence not earlier than June nor later than October; a final report on the work done is required. In all cases preference is given to candidates aiming at a course in Surgery and to researchers likely to contribute to Surgery and its branches.

H.W. MOLSON FELLOWSHIP IN CANCER RESEARCH

Value not less than $5,000, renewable for not more than four years, and open to graduates of any recognized medical school. The course of training and research will be decided by the chairman of Pathology and the Professor of Obstetrics and Gynecology. Apply to the *Dean of the Faculty of Medicine,* sixth floor in the Medical Sc. Bldg.

FELLOWSHIPS IN NEUROLOGY, NEUROPATHOLOGY, AND NEUROSURGERY

A limited number of fellowships may be available in the Montreal Neurological Institute, to which inquiries should be directed.

NISSENTHAL MEMORIAL AWARD

Established by the Trustees of the Ionic Lodge Foundation for Human Welfare in memory of the late Chairman, Michael G. Nissenthal. $500 to be awarded annually to a graduate student in Cancer Research on the recommendation to the Faculty of Medicine Postgraduate Awards Committee.

OSLER MEMORIAL SCHOLARSHIP

Awarded by the Canadian Medical Association as funds permit to a candidate nominated by the Faculty of Medicine "in order that such a candidate may pursue studies to advance the knowledge of medicine and to improve the teaching of clinical medicine". Candidates must be graduates of not more than ten years' standing and, other things being equal, preference is given to McGill graduates.

GORDON PHILLIPS FUND FOR RESEARCH IN CARDIOVASCULAR DISEASES

This fund provides a scholarship of not less than $2,500, open to graduates in Medicine of any approved medical school regardless of sex, race or religion. Awards to McGill graduates in Medicine may be held at McGill or at any other approved institution. Awards made to other graduates in Medicine must be held at McGill University. Apply to the Associate Dean, Graduate Studies and Research, *Faculty of Medicine*, 6th. Floor in the McIntyre Medical Sc. Bldg., by February 1.

JOSEPH SCHUBERT MEMORIAL SCHOLARSHIP

Approximate value $1,200 for graduates of any approved medical school who are principally engaged in study of the physiology of the heart, or its diseases. Apply to the Associate Dean, Graduate Studies and Research, *Faculty of Medicine,* 6th. Floor in the McIntyre Medical Sc. Bldg., by February 1.

CORINNE FAY TABAC MEMORIAL AWARD IN MEDICINE

Established by the family and friends of the late Corinne Fay Tabac, in her memory, for the support of established investigators doing research closely allied to the study of Hodgkins Disease. Awarded annually by the Postgraduate Awards Committee of the Faculty of Medicine.

JEANNETTE AND ABRAM VICTOR MEMORIAL SCHOLARSHIP

Of the approximate value of $1,000, open to graduates of any approved medical school and who are principally engaged in research upon the physiology of the heart, or its diseases. The scholar may hold another award or position. Apply to the Associate Dean, Graduate Studies and Research, *Faculty of Medicine,* 6th. Floor in the McIntyre Medical Sc. Bldg., by February 1.

HIRAM N. VINEBERG RESEARCH FUND

The income from a bequest by the late Dr. Hiram N. Vineberg to be used for fellowships or for grants to departments to provice technical assistance, equipment and supplies for medical research.

HARRISON WATSON SCHOLARSHIP

Established in 1953 by a bequest from the late Harrison Watson and Ruth Appleton Watson in memory of their only son, Captain Aubrey Wentworth Harrison Watson, D.S.O., M.C. Value not less than $1,500, open to men and women graduates of an approved Faculty of Medicine or holders of M.Sc. or Ph.D. degrees or approved candidates for Ph.D. degrees at McGill who have completed one year of research and study towards their degree and also to candidates who have spent at least one year in postgraduate training. Awards of higher value may be made to candidates with higher qualifications. Renewable for two additional years. Preference is given to McGill graduates. The purpose of the scholarship is the encouragement of research into the causes and cure of tuberculosis and other diseases of an allied character. Tenable only at McGill unless the scholar is a graduate in Medicine of McGill in which case it is also tenable at an approved institution elsewhere. The holder must devote his or her full time for at least ten consecutive months to the object of the award. Application forms obtained from the Associate Dean, Graduate Studies and Research, Faculty of Medicine, must be submitted before February 1.

DR. MILTON C. AND NINA E. WILSON AWARD

Established in 1970 by bequest from the late Dr. Milton C. Wilson, the annual income to be available for the support of undergraduate or postgraduate students in the Faculty of Medicine who are in need of financial assistance. Awarded by the Dean of Medicine.

MUSIC

JULIUS SCHLOSS MEMORIAL AWARD

Value: about $700. Established by Mr. and Mrs. Oscar Schloss in memory of their brother, the composer Julius Schloss (1902-1972), one of the foremost pupils of Alban Berg in Vienna during the late 1920's and early 1930's whose collected works were donated by the family to the McGill Faculty of Music. This award is to be made to a graduate student in Music on the recommendation of the Graduate Committee of the Faculty of Music. No application necessary.

MARVIN DUCHOW MEMORIAL SCHOLARSHIP

Value $600. To be awarded annually to a graduate student in Music. Established by the family and friends of Prof. Marvin Duchow, in his memory. The award will be made by the Scholarships Committee of the Faculty of Music.

THE ARTHUR AND HELEN HENDERSON SCHOLARSHIP

Value $600. Preference will be given to students in organ and church music. Open to both graduate and undergraduate students. Awarded by the Scholarships Committee of the Faculty of Music.

ALAN MILLS MEMORIAL AWARD

Value $200. Established by the family and friends of the late Alan Mills. Preference will be given to students engaged in research in Canadian Folk Music or to students in Voice Performance. Available to both graduate and undergraduate students in the Faculty of Music.

HERBERT C. CALLEY AWARD

Approximate value $300. Preference given to a student specializing in the performance or history of Baroque and early music. Open to both graduate and undergraduate students. Established by Mrs. Maude Caley in memory of her late husband who died December 24, 1980.

PRIX DE LA SOCIÉTÉ DE MUSIQUE CANADIENNE

Value $300. To be given to a Composition student, undergraduate or graduate, who is a Canadian citizen. Established by La Fondation les Amis de l'Art and given in alternating years to McGill and l'Université de Montréal. Available to McGill students in 1983-84 and in 1985-86.

NATURAL SCIENCES AND ENGINEERING

Awards Tenable in More Than One Department or Faculty

D.W. AMBRIDGE AWARD

An award to a graduate receiving the degree of Ph.D. in the Physical Sciences or Engineering. The winner is selected from candidates nominated by each department. The award is for the student whose academic record, including research and thesis, is judged to be outstanding among all those who graduate during the academic year. The winner receives both a cash award and an engraved plaque. This award was made possible by a gift to the late Douglas White Ambridge from the employees and shareholders on the occasion of his retirement from the presidency of Abitibi Power and Paper Company, Limited on Feb. 1, 1963.

CANADIAN INSTITUTE OF MINING AND METALLURGY MONTREAL BRANCH LOAN FUND.

Established in 1958 by the Montreal Branch of the Institute of Mining and Metallurgy to provide loans to students in Geological Sciences, Metallurgical Engineering, and Mining Engineering.

WILLIAM HENRY HOWARD SCHOLARSHIPS

Three scholarships of $1,000 each bequeathed in 1955 by the late Mrs. Florence P. Howard in memory of her husband. Open to undergraduate and graduate students in Metallurgy, Chemical Engineering and Geological Sciences. Awarded and renewable upon the recommendations of the Departments concerned for scholastic ability and general promise.

OTTO MAASS MEMORIAL FELLOWSHIP

Value at least $9,850 per annum for graduate students in Chemistry, Chemical Engineering, Mechanical Engineering or Electrical Engineering at McGill who are conducting their thesis research in the Pulp and Paper Research Institute of Canada. The fellowship is renewable and may be supplemented by nominal amounts of demonstrating in the University. Apply to the Chairman, Education Committee, Pulp and Paper Research Institute of Canada, McGill University, Pulp and Paper Building, 3420 University St., Montreal, Québec H3A 2A7.

S.G. MASON FELLOWSHIP

Value at least $9,850 per annum for graduate students in Chemistry, Chemical Engineering, Mechanical Engineering or Electrical Engineering at McGill who are conducting their thesis research in the Pulp and Paper Research Institute of Canada. The fellowship is renewable and may be supplemented by nominal amounts of demonstrating in the University. Apply to the Chairman, Education Committee, Pulp and Paper Research Institute of Canada, McGill University, Pulp and Paper Building, 3420 University St., Montreal, Québec H3A 2A7.

ALEXANDER McFEE FELLOWSHIP

Value $5,500 open to graduates of any approved university who are resident full-time candidates for higher degrees or diplomas at McGill. The award will be made in Physics, Chemistry, and Medical Sciences (with preference for Cancer research).

FRANK L. MITCHELL MEMORIAL FELLOWSHIP

Value at least $9,850 per annum for graduate students in Chemistry, Chemical Engineering, Mechanical Engineering at McGill who are conducting their thesis research in the Pulp and Paper Research Institute of Canada. The fellowship is renewable and may be supplemented by nominal amounts of demonstrating in the University. Apply to the Chairman, Education Commit-

tee, Pulp and Paper Research Institute of Canada, McGill University, Pulp and Paper Building, 3420 University St., Montreal, Québec H3A 2A7.

EMIL NENNIGER MEMORIAL FELLOWSHIP

A fellowship of $1,200 donated by Mrs. F.S. Nenniger in memory of her husband's outstanding contribution to engineering. Awarded annually to graduate students of Chemical and Civil Engineering in alternating years on the basis of scholastic ability and general promise. Apply to the Chairman, Department of Chemical or Civil Engineering.

NORANDA GRADUATE RESEARCH FELLOWSHIPS

Awards of $9,500 (plus $500 for equipment and other expenses), renewable up to three years, and open in the fields of Mining, Mineral Engineering, Extractive Metallurgy, Chemical Engineering, Electrochemistry, Inorganic Chemistry, Physical Metallurgy, and Materials Science. Application should be made through the appropriate University department to the Director of Research and Development, Noranda Research Centre, 240 Hymus Boulevard, Pointe Claire, Québec, not later than April 1. Recipients of Fellowships will be notified by May 1. Preference will be given to Canadian citizens.

JOHN BONSALL PORTER SCHOLARSHIP

Value $1,000, founded by Dr. W.W. Colpitts (B.Sc., 1899). Open to graduate students proceeding to the degree of M.Eng. in Civil, Mechanical, or Electrical Engineering, preferably in Civil Engineering. Apply to the Dean of the Faculty of Engineering not later than July 30. Applications from graduates of other universities must be accompanied by certified statements of academic standing and letters of recommendation.

PULP AND PAPER RESEARCH INSTITUTE OF CANADA GRADUATE STUDENTSHIPS

At least two studentships, value at least $9,350 per annum, for graduate students in Chemistry, Chemical Engineering at McGill who are conducting their thesis research in the Pulp and Paper Research Institute of Canada. Renewable and may be supplemented by nominal amounts of demonstrating in the University. Apply to the Chairman, Education Committee, Pulp and Paper Research Institute of Canada, McGill University, Pulp and Paper Building, 3420 University St., Montreal, Québec H3A 2A7.

CLIFFORD B. PURVES MEMORIAL FELLOWSHIP

Value at least $9,850 per annum for graduate students in Chemistry, Chemical Engineering and Mechanical Engineering or Electrical Engineering at McGill who are conducting their thesis research in the Pulp and Paper Research Institute of Canada. The fellowships is renewable and may be supplemented by nominal amounts of demonstrating in the University. Apply to the Chairman, Education Committee, Pulp and Paper Institute of Canada, McGill University, Pulp and Paper Building, 3420 University St., Montreal, Québec H3A 2A7.

CARL REINHARDT SCHOLARSHIPS AND BURSARIES IN PHYSICS AND GEOLOGICAL SCIENCES

Established from the estate of the late Carl Reinhardt. To be used for scholarships or bursaries for undergraduate students in the Departments of Physics and Geological Sciences, and for scholarships or bursaries or in the support of their research for graduate students. Awards are made by the Faculty of Graduate Studies and Research, on the recommendations of the Chairmen of the departments concerned.

DAVID STEWART MEMORIAL FELLOWSHIP

See alphabetical listing under *Agriculture and the Biological Sciences.*

Chemistry

T. STERRY HUNT AWARDS IN CHEMISTRY

Six $300 awards for best demonstrating. Awarded by the Department of Chemistry. No application necessary.

COLL McFEE MEMORIAL SCHOLARSHIP

See alphabetical listing under *Education.*

RICHARD T. MOHAN SCHOLARSHIP

Established in 1971 to honour the memory of the late Richard T. Mohan. To be awarded to a postgraduate student in the Department of Chemistry proceeding to the Ph.D. degree. No applications necessary.

CARL A. WINKLER AWARD IN CHEMISTRY

Made possible by the donations of his graduate students, colleagues, friends, and a matching gift by Polysar Limited. The award of about $600 is given annually to the Ph.D. candidate who upon graduating is judged to be of outstanding academic excellence. Awarded by the Chemistry Department. No applications necessary.

CARL A. WINKLER MEMORIAL FELLOWSHIP

Value at least $9,850 per annum for graduate students in Chemistry, Chemical Engineering, Mechanical Engineering or Electrical Engineering at McGill who are conducting their thesis research in the Pulp and Paper Research Institute of Canada. Made possible by the donations of his graduate students, colleagues, friends, and a matching gift by Polysar Limited. The award of about $600 is given annually to the Ph.D. candidate who upon graduating is judged to be of outstanding academic excellence. Awarded by the Chemistry Department. No aplications necessary.

Civil Engineering

FRANKI FELLOWSHIP IN SOIL MECHANICS

Please see the alphabetical listing under *Awards for McGill and Elsewhere.*

Geological Sciences

DAVID HARRIGAN MEMORIAL PRIZE

Value $300, established in 1980 by his classmates, friends and family in memory of David Harrigan (B.Sc. 1973, M.Sc.A 1975). Awarded by the Faculty of Science Scholarships Committee on the recommendation of the department of Geological Sciences to a student with high standing in the M.Sc. (Applied) course, or to a graduate or undergraduate student with an interest in geochemistry.

LEROY MEMORIAL FELLOWSHIPS IN GEOLOGICAL SCIENCES

Value $4,500, established by friends of Captain O.E. LeRoy (Arts, 1895), who was killed at Passchendale, in October 1917. May be awarded annually to a student who desires to proceed with postgraduate studies in Geology at McGill. The recipients may be asked to assist in teaching in the Department. Awarded on the recommendation of the Chairman of the Department of Geological Sciences.

J.B. LYNCH FELLOWSHIP IN GEOLOGICAL SCIENCES

$4,000 for an outstanding student commencing or continuing postgraduate studies in Geological Sciences. Apply to the Department of Geological Sciences before February 1.

JOHN STEVENSON MEDAL

Awarded on the department's recommendation to the graduating student ranking first in the M.Sc. A. program in Mineral Exploration in the Department of Geological Sciences.

German

THE DEUTSCHE GESELLSCHAFT ZU MONTREAL SCHOLARSHIP

Value $500, awarded by the German Department, to a Canadian citizen or landed immigrant pursuing graduate studies in German language and literature, including German-Canadian studies.

Mining and Metallurgical Engineering

ALCAN FELLOWSHIP

Value $8,000. Open to graduates of any university admitted to McGill as resident candidates for a Master's or Doctor's degree in Metallurgy and related subjects. The holder must devote himself primarily to research in a field defined by the department preferably in consultation with Alcan.

SIR WILLIAM DAWSON FELLOWSHIP IN METALLURGY

A research and teaching graduate award of $500, or three undergraduate awards totalling $5,500 in the Department of Mining and Metallurgical Engineering, endowed in memory of the late Sir William Dawson, Principal of McGill University from 1855 to 1893.

JAMES DOUGLAS FELLOWSHIP IN MINING ENGINEERING

A research and teaching fellowship of $3,000 in the Department of Mining and Metallurgical Engineering endowed by the late Dr. James Douglas and open to qualified university graduates.

B.J. HARRINGTON BURSARY IN MINING ENGINEERING

Value $1,500, supported by graduates in Mining Engineering in memory of the late Professor B.J. Harrington, awarded annually if a suitable candidate applies, and open to qualified univesity graduates.

QUEBEC IRON AND TITANIUM CORPORATION FELLOWSHIP IN METALLURGY

Value $6,000. Open to students beginning a Ph.D. program in Metallurgical Engineering. The applicant must be a Canadian citizen intending to pursue a career in Québec. Deadline for applications is September 1.

WILLIAM STEWART RUGH SCHOLARSHIP

A research and teaching postgraduate award of $6,000, or three undergraduate awards of $2,000 each in the Department of Mining and Metallurgical Engineering, endowed by the late Helen Stewart Rugh in memory of her father, William Stewart Rugh. The awards are made on the recommendation of the chairman of the Department of Mining and Metallurgical Engineering.

HORACE G. YOUNG FELLOWSHIPS

Awarded to graduates of McGill University who are conducting advanced research in the Department of Mining and Metallurgical Engineering. Two awards of $2,500 each are made annually. Awarded by the Faculty of Graduate Studies and Research on the recommendation of the Chairman of the Department of Mining and Metallurgical Engineering, to whom applications should be made before February 1.

NURSING

ALUMNAE ASSOCIATION OF THE SCHOOL OF NURSING SCHOLARSHIP

Two scholarships are also available for students in the M.Sc. A. program. Applications should be submitted by June 1 to the Chairman of the Scholarship Committee, Alumnae Association, School of Nursing, 3506 University Street, Montreal, PQ, H3A 2A7.

CANADIAN NURSES' FOUNDATION

Members of the Canadian Nurses' Association may apply for awards for study at the master's level and at the doctoral level. The number of awards and the amounts given vary according to availability of funds. Application forms may be obtained from the Canadian Nurses' Foundation after Novermber 1 and must be submitted to the CNF by March 31 each year. To be considered for funding each applicant must obtain admission status to a master's or doctoral program and be willing to serve in a nursing position in Canada for one year for each academic year funded.

For further information and/or application forms write to the Canadian Nurses' Foundation, 50 The Driveway, Ottawa, Ont. K2P 1E2.

MONTREAL GENERAL HOSPITAL

The Montreal General Hospital has a limted number of bursaries available for nurses studying in the Master's program. For further information apply to the Director of Nursing, Montreal General Hospital, 1650 Cedar Avenue, Montreal, Québec, H3G 1A4.

MONTREAL GENERAL HOSPITAL SCHOOL OF NURSING ALUMAE ASSOCIATION BURSARIES

Bursaries are available for graduates of the Montreal General Hospital School School of Nursing, who have been accepted into an approved university program. For further information apply to the School of Nursing Alumnae Association, Department of Nursing, The Montreal General Hospital, 1650 Cedar Avenue, Montreal, Québec, H3G 1A4.

NATIONAL HEALTH GRANTS

Fellowships of approximately per year are offered to highly qualified candidates for full-time training in the organization and evaluation of *Health Services and Related Fields of Health-Care Research.* Students wishing to prepare themselves as researchers in nursing and health care are eligible for this grant. Applicants must be accepted into the program prior to application. Apply to: The Director, Grants and Contributions Division, Extramural Research Programs Directorate, Health Services and Promotion Branch, Health and Welfare Canada, Ottawa, Ontario, Canada K1A 1B4. There are two competitions: January 31 for grants effective July 1; and November 15 for grants effective April 1 of the following year.

ORDER OF NURSES OF QUEBEC BURSARIES

A limited number of bursaries are awarded each year for studying leading to the Master's degree. The amount of each bursary is $5,000. Applictions should be submitted by May 15 to The Order of Nurses of Québec, 4200 Dorchester Blvd. West, Montreal, Québec, H3Z 1V4.

ROYAL VICTORIA HOSPITAL NURSING SCHOLARSHIPS

Bursaries are offered to senior staff members for postgraduate study. Applications should be submitted by March 1 to The Director of Nursing, Royal Victoria Hospital, 687 Pine Avenue West, Montréal, Québec, H3A 1A1.

ROYAL VICTORIA HOSPITAL SCHOOL OF NURSING ALUMNAE ASSOCIATION BURSARY

The Alumnae Association bursary of $1,000 and the Jean Allison Memorial bursary of $1,000 are open to graduates of the Royal Victoria Hospital School of Nursing accepted in an approved University program. Apply before March 31 to Alumnae Office, Nurses' Home, Royal Victoria Hospital, 687 Pine Ave. W., Montréal, PQ, H3A 1A1.

ST. JOHN AMBULANCE (ORDER OF ST. JOHN) OF CANADA BURSARIES

One bursary of $1,000 from the Margaret MacLaren Memorial Fund for study at the Master's is available to experienced registered nurses who have proven their ability and are preparing themselves for leadership positions. Preference will be given to qualified applicants who are volunteers with St. John Ambulance. Applications must reach National Headquarters are to be forwarded not later than May 1, addressed to the Chairman of Bursary Funds, St. John Ambulance, National Headquarters, 312 Laurier Avenue East, Ottawa, Ont. K1N 6P6.

VICTORIAN ORDER OF NURSES FOR CANADA BURSARIES

Bursaries of up to $9,000 may be awarded to nurses studying for a Master's degree in such areas as administration or clinical nursing. Employment commitment. For information, write to National Director, VON for Canada, 5 Blackburn Avenue, Ottawa, Ont. K1N 8A2.

Loans

CANADIAN NURSES' ASSOCIATION LOANS

The Canadian Nurses' Association is prepared to provide loans to its members for the purpose of enabling them to undertake post-basic studies in nursing at recognized universities leading to a baccalaureate or higher degree. The total amount of these loans shall not exceed $8,000 annually, and the maximum amount of any loan shall not exceed $800. Additional information and application forms may be obtained from the Canadian Nurses' Association, 50 The Driveway, Ottawa, Ont. K2P 1E2.

W.K. KELLOGG FOUNDATION LOAN FUND

This fund was established to assist students who have unexpected expenses while registered in courses at the School of Nursing. Consult the Director, School of Nursing, McGill University, 3506 University St., Montreal, Québec, H3A 2A7.

PHILOSOPHY

GUY DESAUTELS MEMORIAL PRIZE

A prize established by the friends and colleagues of the late Guy Désautels, to be awarded by the Department of Philosophy to a graduate student who has done outstanding work in the history of philosophy.

PHYSICAL AND OCCUPATIONAL THERAPY

NATIONAL HEALTH GRANTS

Fellowships of approximately $8,250 per year are offered to highly qualified candidates for full-time training in the organization and evaluation of Health Services and Related Fields of Health-Care Research. Students wishing to prepare themselves as researchers in health care are eligible for this grant.

Applicants must be accepted into the program prior to application. Apply to: The Director, Grants and Contributions Division, Extramural Research Programs Directorate, Health Services and Promition Branch, Health and Welfare Canada, Ottawa, Ontario, Canada, K1A 1B4. There are two competitions: January 31 for grants effective July 1; and November 15 for grants effective April 1 of the following year.

M. PICHETTE BURSARY

A bursary of $1,000 offered to Physiotherapists registered in a 2nd or 3rd cycle academic program. Apply to Corporation Professionnelle des Physiothérapeutes du Québec, 1575 ouest, Boulevard Henri-Bourassa, Bureau 530, Montréal, Québec H3M 3A9.

RELIGIOUS STUDIES

SAMUEL FINLEY NATIONAL BURSARY

Usually $300 available to a student enrolled in the Faculty of Graduate Studies and Research who is pursuing advanced studies in religion or theology, awarded at the discretion of the Dean of Religious Studies.

HOUSTON BURSARY

HOUSTON BURSARY – Established by a bequest of Thomas Houston, for students studying for the ministry of the Presbyterian Church in Canada or the United Church of Canada, and preference is given to candidates whose mother tongue is French. Awarded by the Faculty of Religious Studies and open to students in the Faculty of Arts and the Faculty of Religious Studies. Usually $500.

ARTHUR AND JESSIE LOCHEAD BURSARY FUND

For students planning to enter the Christian Ministry. Awarded on the basis of need. Apply to the Dean of the Faculty of Religious Studies.

RELIGIOUS STUDIES BURSARY FUND

Established in 1980 by an anonymous donor for undergraduate and graduate students in theological degree programs in the Faculty of Religious

Studies, with a preference to francophone students. Awarded by the Faculty of Religious Studies on the basis of academic standing and financial need.

TOPPING MEMORIAL BURSARY

Established in 1976 by C.W. Topping in memory of his father, the Reverend N.B. Topping, a minister of the Methodist Church of Canada for fifty years. Awarded to a graduate student pursuing advanced studies in religion or theology, and who has financial need and shows promise of becoming both a scholar and a humanitarian. Awarded at the discretion of the Dean of Religious Studies.

SOCIAL WORK

SCHOOL OF SOCIAL WORK ALUMNI PRIZES

The Alumni Committee of the School of Social Work has established an annual prize to be awarded to the student with the highest standing in the Master of Social Work Program. The present value of the award is $150.

A second prize is awarded to the outstanding student in clinical practice in the Master of Social Work program. The present value is $100.

KEEFER SCHOLARSHIP

Value $2,500. Established by Mr. George Keefer, and tenable by a student in social work who wishes to pursue graduate studies in social work practice related to the elderly. Apply to the School of Social Work.

Bursaries

Some limited sources exist for both loans and bursaries through the School, including some funds made available by the School Alumni. Inquiries may be made at the time of application for admission to the School.

POSTDOCTORAL FELLOWSHIPS

Students of Medicine and the Medical Sciences should also read the alphabetical listings under *Medicine and the Medical Sciences*. Several programs listed there provide awards for both students studying towards a doctoral degree and for postdoctoral students.

DEPARTMENT OF NATIONAL DEFENCE FELLOWSHIP

One fellowship worth $10,000 is offered annually. The award is for strategic studies of special relevance to current and future Canadian security. Studies may relate to any of the economic, political, military, technological or sociological dimensions of national security. Duration is one year, and the award may be renewed on evidence of academic achievement satisfactory to the selection committee. Applicants must be Canadian citizens. The awards are normally tenable in Canada, but in special circumstances, permission may be granted to undertake studies outside of Canada. A more detailed description is available at the Fellowships Office.

Application forms can be obtained from the Awards Officer, National Programs Division, Association of Universities and Colleges of Canada, 151 Slater Street, Ottawa, Ontario K1P 5N1. Completed applications must be returned to the same address by February 1.

HAROLD HIBBERT MEMORIAL FELLOWSHIP

Approximately $6,500 plus travel assistance, open to candidates who hold a Ph.D. in Chemistry or its equivalent from an approved university. Tenable for one calendar year in the Department of Chemistry at McGill, where the holder must devote full time to research. Not renewable. Apply in writing to the Chairman of the Department of Chemistry by February 1.

C.D. HOWE MEMORIAL FELLOWSHIP

Open to Canadian citizens or those normally resident in Canada. Tenable anywhere. Value $5,000 for a single student or $7,000 for a married student, plus travel expenses if applicable. Restricted to persons whose proposed program of research is related to the political, administrative, economic, social or intellectual history of Canada since 1930, and is in some way relevant to an understanding of the public career of the Rt. Honourable C.D. Howe. Apply to Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St. Ottawa, Ont. K1P 5N1. Completed applicant forms must reach the Director before November 30.

MEDICAL RESEARCH COUNCIL FELLOWSHIP

Value: varies from $12,000 to $19,000. The candidate must hold a M.D., D.D.S., D.V.M., Ph.D. or equivalent, and plan to undertake full-time research training in the health sciences. Ph.D. candidates cannot hold the award in the department where they received their Ph.D. Applications are considered at three deadlines: Oct. 1, Dec. 15, and April 1. Application forms can be obtained from the office of the Associate Dean for Graduate Studies and Research, *Faculty of Medicine,* McIntyre Medical Sciences Building.

NATO POSTDOCTORAL FELLOWSHIPS

Purpose: To stimulate international exchange of graduate students in the pure and applied sciences between NATO countries.

All other conditions of these awards are similar to the Natural Sciences & Engineering Research Council Postdoctoral Fellowships listed below.

NATURAL SCIENCE & ENGINEERING RESEARCH COUNCIL POSTDOCTORAL FELLOWSHIPS

Value $18,700 for twelve months, plus a travel grant if required. Eligibility: Canadian citizens and landed immigrants. Landed immigrants must be residing in Canada and obtain their doctorate from a Canadian University. Deadline for application: December 1. Applications are available in the Fellowships Office of the Faculty of Graduate Studies and Research, Room 312 Dawson Hall or from the Natural Sciences & Engineering Research Council, Programs Branch, Scholarships Division, Ottawa, Canada K1A 0R6.

EXCHANGE AND TRAVELLING FELLOWSHIPS

A.U.C.C. INTERNATIONAL FELLOWSHIP PROGRAM

The Association of Universities and Colleges of Canada administers many foreign fellowship and exchange programs on behalf of the Canadian and foreign governments. A common condition is that the applicant be a Canadian citizen. Most of these programs have a common application deadline: October 31. Applications can be obtained from a common mailing address:

Director, International Programs
Association of Universities and
Colleges of Canada
151 Slater Street
Ottawa, Ontario K1P 5N1

A list of the foreign countries and institutions with which the A.U.C.C. administers fellowship and exchange programs follows, along with a brief summary of the fields of study and main restrictions on each. A more detailed description of each program can be obtained in the Graduate Faculty Academic Exchange Office, Room 312 Dawson Hall.

Country	Summary
Belgium	All fields: both study awards (1 year) and research awards (1 year or 6 months).
China	Language, literature, history, political philosophy, and medicine. One year, renewable subject to review.
Denmark	Eight months, all fields.
Finland	All fields, up to nine months with possible renewal.
France	An extensive program in all fields, 11 months (Master's) to 39 months (Doctoral) support.
Germany (West)	An extensive proram; all fields except pharmacy, medicine and dentistry.
Hungary	All fields, one year with renewal in exceptional cases only.
Mexico	All fields except medicine; one year.
Netherlands	Unrestricted; one year. Special awards in social work, fine arts, and music.
Norway	Nine months; preference for study of Norwegian subjects.
Poland	One year; all fields.
Portugal	All fields, also one 3 - 6 month fellowship in the arts, or any field of the Portugese culture.
Spain	All fields, doctoral study or research for one year.
Switzerland	All fields; ten months with possibility of a one-year renewal.
U.S.A.: Harvard	All fields; Frank Knox Memorial Fellowship.
U.S.A.: Ohio State	Emergency Planning Fellowship. Tenable at the Disaster Research Center, O.S.U.
Yugoslavia	Ten to twelve months; possibilities for renewal of postgraduate awards.

SIR EDWARD W. BEATTY MEMORIAL SCHOLARSHIPS FOR MEDICAL STUDENTS

Available for study elsewhere to students registered for the M.D., C.M. degree in the McGill Faculty of Medicine. See the description listed alphabetically under *Medicine and the Medical Sciences.*

C.I.D.A. AWARDS

Canadian citizens studying at the Masters' level, who intend a career in the field of international cooperation are eligible for these fellowships, whose value may be as much as $11,500 per year. The program must include both an academic and a practical component carried out in a developing country, and can cover a maximum of two years. Priority will be given to programs in food production and distribution, rural development, education and training, public health, demography, shelter and energy, and Canadian public participation in development. Applications are available from the:

Scholarship Program for Canadians
Canadian International Development Agency
Human Resources Directorate,
200 Promenade du Portage, Hull, Québec K1A 0G4

Completed applications must be returned to the above address by January 31.

COMMONWEALTH SCHOLARSHIP AND FELLOWSHIP PLAN

This scheme provides opportunities for Canadian students to pursue graduate studies in other Commonwealth countries. The deadline is OCTOBER 31 for the following countries: Ghana, Hong Kong, India, Jamaica, Malaysia, Nigeria, Sri Lanka, Trinidad & Tobago, Uganda, United Kingdom. The deadline for Australia and New Zealand is DECEMBER 31. Awards are normally made for two academic years and cover all expenses. Information is available from the Fellowships Office but application forms must be obtained from: Canadian Commonwealth Scholarship and Fellowship Committee c/o The Association of Universities and Colleges of Canada, 151 Slater Street, Ottawa, Ontario K1P 5N1.

GUY DRUMMOND SCHOLARSHIP IN POLITICAL SCIENCE AND ECONOMICS

See the alphabetical listing under *Economics and Political Science.*

GERMAN ACADEMIC EXCHANGE SERVICE McGILL FELLOWSHIPS (DAAD)

Two German Academic Exchange Fellowships are reserved especially for Canadian students from McGill. The awards are valued at 870 DM to 1300 DM/month plus return travel expenses, free tuition, course fees, and university examination fees. Tenable at universities, technical universities, scientific institutions, and academies of art or music in the Federal Republic of Germany for study in any field except pharmacy and medicine. Candidates must be Canadian citizens and university graduates presently studying at McGill, must have a good knowledge of German and must not be more than 32 years old. Apply to the office of the Coordinator of Fellowships and Exchanges, Room 312 Dawson Hall, Faculty of Graduate Studies and Research. The deadline is December 1.

GLASGOW EXCHANGE SCHOLARSHIP

Established to enable a McGill graduate to spend two years of postgraduate work at the University of Glasgow and for a graduate of the University of Glasgow to spend two years of postgraduate work at McGill. Glasgow will waive fees for the student from McGill and provide a cash award to a total value of about $2,000 pounds sterling plus fees. The value of the award at McGill for the student from Glasgow is $5,500. Vacancies in the program arise in odd-numbered years. Interested Glasgow students should seek further information from the Clerk of Senate, University of Glasgow, Glasgow, W. 2., Scotland. McGill students should apply by February 15 of even-numbered years to the Office of the Coordinator of Fellowships and Exchanges, Room 312, Dawson Hall, Faculty of Graduate Studies and Research.

MACDONALD TRAVELLING SCHOLARSHIP

Founded by the will of the late Sir William Macdonald "for the purpose of enabling English speaking Law students to take a course of studies in France", the testator "deeming it of great importance that the English-speaking members of the legal profession should be proficient in the French language". The value of the scholarship is approximately $9,000. The scholar selected is required to pursue a year's study in the Law Faculty of a French University approved, in each case, by the Faculty. The award is made at the discretion of the Faculty to a student of the graduating class proceeding to the Bar, who has obtained first or high Second Class honours in the final examination, and who would be unable without such financial help to spend a year in France. The Faculty interprets the will of the late Sir William Macdonald as intending that the scholarship be awarded only to students preparing for the legal profession in the Province of Québec. Under the present regulations the scholarship must be used in the year in which it is awarded. Candidates should make application for this scholarship to the Dean.

MACKENZIE KING TRAVELLING SCHOLARSHIPS

Four or five scholarships of not less than $2,500 each, offered to graduate of any Canadian university who propose to engage, either in the U.S.A. or the United Kingdom, in postgraduate studies in International or Industrial Relations (including international or industrial aspects of Law, History, Politics, Economics). Applicants should be persons of unusual worth and promise. Awards are based on their academic achieve-

ment, personal qualities and demonstrated aptitudes, as well as their proposed programs of study. Deadline for receipt of applications and supporting documents is February 1. Information about application procedure can be obtained from the Awards Office, The University of British Columbia, Room 50, General Administration Building, Vancouver, B.C. V6T 1W5.

MOYSE TRAVELLING SCHOLARSHIPS

Founded by the late Right Honourable Lord Atholstan, to commemorate the "splendid services of Dr. Charles E. Moyse, for forty-two years Professor of English, during sixteen of which he was Dean of the Faculty of Arts and Vice-Principal of the University." Two scholarships, normally of $2,500 each tenable for one year. One scholarship to be awarded by the Faculty of Arts for distinction in literary subjects and the other by the Faculty of Science for distinction in scientific subjects. If there is no winner in one of these faculties both scholarships may be awarded to applicants in the other faculty.

In the absence of applicants of sufficient merit in either of the faculties, applicants from final year students in, or graduate of, other faculties of the University may be considered.

Holders must devote the year of tenure to advanced study, preferably in a British or European university, but not to the exclusion of other institutions approved by the Faculty of Arts or of Science. Applications, whether from graduates or from students in the final year of the undergraduate course, should reach the Dean of the Faculty of Arts or of Science not later than April 1. Applications should be accompanied by: (1) the names of two referees who are familiar with the applicant's work; (2) a detailed and comprehensive statement of the applicant's proposed course of study; the institution or centre at which it is proposed to study; (3) a statement of the applicant's age and nationality.

Awards will be made after the results of final examinations in the final year of the undergraduate course have been determined.

RHODES SCHOLARSHIPS

Approximately £1.550, represented by a personal allowance of approximately £80 per month and direct payment of University and College fees and dues, for two scholars chosen from the Province of Québec, tenable for two years of Oxford University. A third year may be granted under certain conditions. Candidates must be British subjects with at least five years domicile in Canada and be between the ages of nineteen and twenty-five. Men or women in any faculty may apply. Applications must reach the Secretary of the Provincial Selection Committee before October 5. For further details of tenure, eligibility, and qualifications, and application forms apply to the Dean of Students' office, 3637 Peel St., Room 211.

ROTARY FOUNDATION FELLOWSHIP

Approximately $4,000. The Rotary Foundation of Montreal, District 704, offers a Graduate Fellowship for study abroad each year. Requirements for candidates (male or female) are: bachelor's degree or equivalent, age 20 - 28 inclusive, may be married. The award covers round trip transportation, room and board, tuition and miscellaneous related expenses for one academic year. Preference is given to applicants who wish to study in a country where the native language is different from their own. For further information and application forms, write to the Rotary Club of Montreal, 8 Harrow Place, Beaconsfield, Québec H9W 5C7. Deadline for receiving applications is March 1.

ROYAL COMMISSION FOR THE EXHIBITION OF 1851 OVERSEAS SCIENCE RESEARCH SCHOLARSHIPS

Value £900 per annum, plus £100 a year to cover university fees. Tenable for two or exceptionally, three years, to enable students to devote themselves to research work under conditions most likely to equip them for practical service in the scientific life of the Commonwealth. The holder must devote himself to a field of research approved by the Commissioners. Three scholarships, tenable at any institution approved by the Commission (usually universities in the United Kingdom), are allotted to Canada each year, the scholars being chosen by the Commission from nominees of certain universities, including McGill. Candidates will in most cases have completed from one to three years of postgraduate study and must present evidence of accomplishment in research, either published papers or typewritten reports or theses. Candidates should apply, not later than March 15 through the Chairman of their Department. Further details may be obtained from the Fellowships Office, Faculty of Graduate Studies and Research or from the graduate studies office in your department.

SHASTRI INSTITUTE FELLOWSHIPS

Five types of fellowships for research and study and language training in India are offered in the humanities and social sciences: (1) Senior Fellowships for established scholars normally resident in Canada (three to twelve months period). Value Rs, 60,000, or difference between leave and regular salart shichever is less, for one year. (2) Faculty Training Grants - Senior fellowships to scholars who have little or no previous involvement with Indian Studies but who wish to develop an expertise in one of the areas supported by the Institute. Value Rs. 60,000, or difference between leave and regular salary whichever is less, for one year. (3) Junior Fellowships for candidates for a higher degree (M.A., M.Phil. Ph.D.) to conduct research in India as partial fulfillment of postgraduate degree re-

quirements. For students seeking a degree at an Indian institution, support is offered for more than one year. Value Rs. 24,000, for one year. (4) Language Training Fellowships, for any qualified person (student, teacher, research scholar) wishing to learn or improve his/her knowledge of an Indian language. Some prior training in the language is required. Value Rs. 20,000 for one year. (5) Fellowships in the performing Arts for established junior artists wishing to study some aspect of Indian dance or music with a recognized Indian teacher and skilled performer. Value to be determined upon submission of detailed budget.

All of the values quoted above are for an unmarried student. The value of one Rupee is $.1403 in Can. $.

Deadline for receiving applications in all categories is October 10.

Apply to: The Executive Director, The Shastri Indo-Canadian Institute, University of Calgary, 2500 University Drive N.W., Calgary, Alberta T2N 1N4.

THOMAS SHEARER STEWART TRAVELLING FELLOWSHIP

Established in 1967 by the family of the late Thomas Shearer Stewart, Q.C. a graduate of the Faculty of Law class of 1908. The fellowship, valued at not less than $6,000*, is to be awarded annually or as often as the Faculty considers advisable, to a recent graduate of the Faculty of Law designated by the Dean of the Faculty, preference being given to a graduate who is a Canadian citizen intending to reside in Canada upon completion of his studies. The fellowship is to be used for a graduate to follow a program of studies in Law at a university in Québec. Candidates shall make application for this fellowship to the Dean.

*It is the policy of the Trustees of the Wainwright Fund to entertain applications for supplements to the Thomas Shearer Travelling Fellowship from candidates showing an interest in the possibility of a career in teaching law.

LOANS

FEDERAL AND PROVINCIAL LOANS

In all cases, a basic qualification is that the applicant must be a Canadian citizen or a landed immigrant with one year's residence in the province to which he or she applies. Most authorities offer a combination of loan and non-repayable bursary. Both the total and the division between loan and bursary are based on financial need.

In all provinces except Québec, the provincial authority administers the Canada Student Loan Plan (Federal) as well as the provincial program. Québec has its own loan plan. The addresses are as follows:

Québec

McGill Student Aid Office	3637 Peel Street Montreal H3A 1W7 Telephone: 392-5256

Newfoundland

Canada Student Loans Authority	Department of Education, Imperial Oil Building, St. John's, Newfoundland. A1C 5R9

Prince Edward Island

Canada Student Loans Committee	Department of Education Charlottetown, Prince Edward Island. C1A 7N8

Nova Scotia

Nova Scotia – Canada Student Loans Committee	Student Aid Office P.O. Box 578, Halifax, Nova Scotia. B3J 2Z1

New Brunswick

Department of Youth	Centennial Building, Fredericton, New Brunswick. E3D 5H1

Ontario

Ministry of Colleges and Universities	Student Awards Branch, Mowat Block, Queen's Park, Toronto, Ontario. M7A 1C6

Manitoba

Department of Colleges and Universities	Student Aid Branch, Box 6, 1181 Portage Avenue, Winnipeg, Manitoba. R3C 0V8

Saskatchewan

Department of Continuing Education	540 Midtown Centre, Regina, Saskatchewan. S4P 3K2

Alberta

Students Finance Board	Department of Advanced Education, 11160 Jasper Avenue, Edmonton, Alberta. T5K 0L2

British Columbia

The British Columbia Department of Education	Division of Post-Secondary Education, 535 Yates Street, Victoria, British Columbia. V8W 2Z6

Yukon Territory

The Students Financial Assistance Awards Committee	Superintendent of Education Box 2703, Whitehorse, Yukon Territory. Y1A 2C6

Northwest Territories

Director of Education for the Northwest Territories	Government of the Northwest Territories, Yellowknife, Northwest Territories. X0E 1H0

McGILL LOANS

Loans from the following funds are administered by the *Student Aid Office,* 3637 Peel Street – Telephone: 392-5256.

MARGARET BIRKS MEMORIAL LOAN FUND

Established in memory of the late Mrs. Margaret Birks, this fund is available to graduate students, preferably in the Department of Psychology. Where loans appear justified, but repayment will not be practical, bursaries will be granted.

GRADUATE STUDENTS' LOAN FUND

Established in 1951 by the Board of Governors for students in the Faculty of Graduate Studies and Research.

HEWITT MEMORIAL BURSARY FUND

A bequest from the late Frederick T. O'Reilly-Hewitt in memory of his parents, the late Daniel Frederick Hewitt and the late Maria Stenson Hewitt for bursaries. Open to students in the Faculty of Arts or to students in the Humanities and Social Sciences in the Faculty of Graduate Studies and Research. Awarded by the Student Aid Office on the basis of financial need and academic promise without restriction as to sex, race, creed, or colour.

FACULTY OF MANAGEMENT STUDENT LOAN FUND

A student loan fund has been established and is administered by the Student Aid Office.

GEORGE W. MERCK MEMORIAL LOAN FUND

Established in 1960 by the Merc Company Foundation to provide loans for undergraduate medical students, interns and residents.

WADDELL LOAN FUND

Loans from this fund, founded by J.B. Waddell, may be made to graduates and undergraduates in any Department of Engineering.

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1 STAFF

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EVA LESSARD, B.Sc.(McG.)

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ALBERT W. TAYLOR, B.A.(W.Ont.), Ph.D.(Washington State), Département d'Éducation Physique, Université de Montréal.

2 GENERAL INFORMATION

2.1 PROFESSIONAL PROFILES

Occupational Therapy is the art and science of assessment and treatment through the specific use of selected activity to maintain or promote health, to evaluate performance and to obtain maximum functional capacity. The occupational therapist a) performs physical and psychological evaluations of the client, b) establishes overall aims of rehabilitation in conjunction with other health disciplines, c) implements an occupational therapy program designed to meet the defined needs of the individual client, d) ats as a consultant to government and community agencies, e) participates in basic or applied research.

Physical Therapy is the art and science of rehabilitation, restoring independence and a maximal level of function to individuals with physical and psychological disorders. Physical therapists use exercise, heat, water, cold, ice, sound and electricity as well as assistive devices and artificial limbs to help individuals regain normal function. The physical therapist is a health professional who contributes to the multidisciplinary team through patient evaluation, treatment planning and delivery, education, research and consultation in clinics and the community.

2.2 DEGREES OFFERED

Bachelor of Science in Occupational Therapy [B.Sc.(Occ.Ther.)]

The full curriculum consists of three academic years following a Québec Collegial Program in the Health Sciences or equivalent. Included are courses in science together with professional training in Occupational Therapy. Clinical experience is provided in the teaching hospitals of the Faculty of Medicine, McGill University, and other affiliated centres.

Bachelor of Science in Physical Therapy [B.Sc.(Phys.Ther.)]

The full curriculum consists of three academic years following a Québec Collegial Program in the Health Sciences or equivalent. Included during the three year program are courses in science together with professional training in Physical Therapy. Clinical experience is provided in the teaching hospitals of the Faculty of Medicine, McGill University, and other affiliated centres.

Master of Science in Health Sciences (Rehabilitation)

A two-year program in Rehabilitation is available under the Faculty of Graduate Studies and Research. The full curriculum consists of two years of study for graduates who hold a Bachelor of Science degree in one of the Medical Rehabilitation disciplines or a related field. Two years of general clinical experience is recommended.

2.3 REQUIREMENTS FOR ADMISSION TO PROGRAMS LEADING TO B.Sc.(Occ. Ther.) OR B.Sc.(Phys.Ther.)

The undergraduate programs in the School of Physical and Occupational Therapy have been designed on the assumption that students have a background in science equivalent to that provided by the Québec Diploma of Collegial Studies; that is, that they have completed the following college-level courses or their equivalent: two semesters of biology; two semesters of general chemistry; one semester of organic chemistry; three semesters of physics (including mechanics, electricity and magnetism, waves, optics), and differential and integral calculus. Students who wish to extend their preparation may wish to take psychology and sociology, although these are not prerequisites.

Québec students who have obtained a Diploma of Collegial Studies in the Health Sciences stream are expected to have taken the following prerequisite courses; Biology 301 and 401; Physics 101, 201, and 301; Chemistry, 101, 201 and 202; Mathematics 103 and 203.

Students from provinces in Canada other than Québec, Ontario and Newfoundland who have completed Grade 12 and who meet the entrance requirements for the Faculty of Science may apply for admission to that Faculty. Upon completing one year of study in appropriate courses, they may apply for transfer to the three-year program in Physical Therapy or Occupational Therapy. Students who have completed Ontario Grade 13 with courses in biology, chemistry, mathematics, and physics

require one university course in each of integral calculus, organic chemistry, and electricity and magnetism prior to applying for admission to the three year program.

Graduates from Grade 12 in the United States who meet the entrance requirements for the Faculty of Science may apply for admission to that Faculty. Upon completing one year of study in appropriate courses, they may apply to transfer to a three-year program in Physical Therapy or Occupational Therapy.

Students from the **United Kingdom and Commonwealth countries** must have completed G.C.E. examinations at the Advanced Level in Biology, Chemistry, Mathematics and Physics and have achieved a grade of "C" or better in each, if they wish to be considered for admission to a three-year program of study. Students who lack these qualifications but who meet the entrance requirements for the Faculty of Science may apply for admission to that Faculty. Upon completing one year of study in appropriate courses, they may apply for admission to a three-year program in Physical Therapy or Occupational Therapy.

Further information with respect to admission requirements and procedures may be obtained from the Admissions Office.

2.4 APPLICATION FOR ADMISSION TO PROGRAMS LEADING TO B.Sc.(Occ. Ther.) OR B.Sc.(Phys.Ther.)

Application for admission to any year must be made through the **Admissions Office of the University.** The deadline for the submission of applications is **March 1st** of the entering year. A non-refundable application fee of $15 must accompany the application form. Application forms must be obtained directly from the Admissions Office, F. Cyril James Building, McGill University, 845 Sherbrooke St. West, Montreal, PQ, H3A 2T5.

2.5 LANGUAGE POLICY

The language of instruction at McGill is English. Students may, if they wish, write term papers and examinations in French, but competence in English is essential to success in the university programs. The English department offers a summer course, English 110-150C, and it is recommended that students who lack fluency in English take this summer course.

2.6 FEES

Annual undergraduated fee is $19 per credit ($137.60 per credit for non-Canadian students who are not permanent residents). For more information on foreign student fees and possible exemptions therefrom please consult the *General Announcement.* In addition, there are Student Society Fees of $49 and Student Services Fees of $95. Refer to the *General Announcement* for details and for information concerning withdrawal, special fees and application for graduation fee.

Expenses for textbooks and other equipment is approximately $300 per annum; uniforms approximately $75.

2.7 PRIZES

The Canadian Physiotherapy Association Book Prize is awarded to the student with the highest standing throughout the B.Sc.(Phys.Ther.) program.

The Carol Rutenberg-Silver Memorial Award is presented to the student with the highest standing in the final year of the B.Sc.(Phys. Ther.) program.

The Canadian Association of Occupational Therapists' Award is presented to the student with the highest standing in theory throughout the B.Sc.(Occ.Ther.) program.

The Jeannette Hutchison Memorial Prize is awarded by the Professional Corporation of Occupational Therapists of Québec to the student demonstrating overall excellence in the clinical application of Occupational Therapy throughout the B.Sc.(Occ.Ther.) program.

The Helen M.Gault Awards are presented to a graduating student in Occupational Therapy and a graduating student in Physical Therapy who have demonstrated the most outstanding qualities of leadership, scholarship and professionalism throughout their undergraduate program.

Scholarships, Bursaries, Loans, Prizes and Awards

A complete list of scholarships, bursaries, prizes and awards, and the regulations governing the various loan funds are given in the *Undergraduate Scholarships and Awards Announcement* for the undergraduate students and in the *Postgraduate Fellowships, Bursaries and Prizes Announcement* for the graduate students. These announcements may be obtained from the Registrar's Office, F. Cyril James Building.

2.8 RESIDENTIAL FACILITIES AND STUDENT SERVICES

Full information concerning residential facilities and student services is given in the *General Announcement.*

2.9 LICENSING REGULATIONS

Certain provinces in Canada and states of the United States of America *require that those intending to practise occupational therapy or physical therapy within their borders comply with special provincial or state licensing regulations. In order to practise occupational therapy or physical therapy in the Province of Québec, a permit must be obtained from the appropriate provincial corporation. Further information may be obtained from the offices of the associations listed below in section 2.11.*

2.10 LANGUAGE REQUIREMENT FOR PROFESSIONS

Québec law requires that candidates seeking admission to provincially-recognized Québec professional corporations* must possess a working knowledge of the French language, i.e., be able to communicate verbally and in writing in that language.

To demonstrate this capability, candidates will be required to pass an examination set by the Office de la langue française, unless they can show that three years of instruction in a French post-primary school have been completed. The professional corporation will require this proof of attendance or of successful completion of the Office examination.

This examination shall test the candidate's mastery of oral and written comprehension and expression in French. The contents may vary in accordance with the current terminological requirements of the profession or professional group.

Examinations take place every three months and may be attempted an unlimited number of times.

The examination may be attempted by registered students during the two years prior to the date they receive a degree giving access to a professional corporation. Arrangements for sitting the exam while still a student must be made through the school office.

More information may be obtained from the Office de la langue française, Tour de la Bourse (Place Victoria), 15ième étage, Montréal, Québec H4Z 1G8, Telephone 873-8361.

Students who need to acquire a functional level of proficiency in French may register in courses at either the Centre for Second Languages (English and French). 3438 McTavish Street, Telephone 392-5727, for courses during the day, or at the Centre for Continuing Education, 772 Sherbrooke Street West, Telephone 392-4901, for courses in the evening.

Students already proficient in French but who wish to keep up practice may register in courses at the Department of French Language and Literature, 3460 McTavish Street, Telephone 392-4577, or at the Centre d'études canadiennes-françaises, 3475 Peel Street, Telephone 392-5200.

* McGill degrees and diplomas currently give access to corporations regulating the activities of the following professional groups:

Advocates
Agrologists
Architects
Chartered Accountants
Chartered Administrators
Chartered Appraisers
Chemists
Dentists
Dietitians
Engineers
Industrial Administration Accountants
Industrial Relations Counsellors
Licensed General Accountants
Notaries
Nurses
Occupational Therapists
Physicians
Physiotherapists
Psychologists
Social Workers
Speech Therapists & Audiologists
Urbanists
Vocational Guidance Counsellors

2.11 PROFESSIONAL ORGANIZATIONS

In order to comply with the standards necessary for membership in both the Federal and Provincial Associations, students are required to complete further clinical practice in accredited occupational or physical therapy departments.

This standard is compatible with the licensing requirements in provinces where legislation is in force.

Canadian National Office

Canadian Association of Occupational Therapists
801 Eglinton Avenue West
Suite 401
Toronto, ON M5N 1E3
(416)789-2689

Canadian Physiotherapy Association
25 Imperial Street
Toronto, ON M5P 1B9
(416)485-1139

Québec Provincial Offices

Corporation professionnelle des ergothérapeutes du Québec
1500, de Maisonneuve Boul. E.,
Suite 400
Montreal, PQ H2L 2B1
(514)527-9281

Corporation professionnelle des physiothérapeutes du Québec
1575, boul. Henri Bourassa ouest
Montreal, PQ H3M 3A9
(514)334-5870

American National Offices

American Occupational Therapy Association Inc.
1838 Picard Drive
Rockville, MD 20850

American Physical Therapy Association
1156 - 15th Street NW
Washington, D.C. 20005

3 REGULATIONS GOVERNING ATTENDANCE, ADVANCEMENT AND EXAMINATIONS

3.1 ATTENDANCE AND TERM WORK

Students will not be permitted to write an examination in any course unless they have fulfilled the requirements of the course to the satisfaction of the instructor and the Director of the School.

It is the responsibility of the students to make sure at the time of registration that there is no conflict in the timetable of the courses which they propose to follow.

Students may be required to attend lectures regularly if the Faculty so rules. Reasons for absences are dealt with only by the Director. For illness necessitating an absence of a week or more, a medical certificate should be presented to the Office of the Director immediately after a student's return to normal attendance.

All lectures begin at five minutes after the hour and end at five minutes before the hour. Students arriving late for lectures may be denied entrance by the instructor.

3.2 CREDIT SYSTEM

All courses carry a credit rating. A total of 99 credits must be passed for a degree in Occupational Therapy or in Physical Therapy.

Courses are graded either by letter grades or in percentages, with the following correspondence and grade point equivalents:

Letter Grade	Percentage	Grade point
A	85-100	4.0
A−	80-84	3.7
B+	75-79	3.3
B	70-74	3.0
B−	65-69	2.7
C+	60-64	2.3
C	55-59	2.0
D	50-54	1.0
F(Fail)	0-49	0

The earned grade point for each course is calculated by multiplying the credit rating of the course by the numerical equivalent of the letter grade earned. Standing will be determined on the basis of a grade point average (GPA) computed by dividing the sum of the grade points accumulated during the year by the total course credits attempted.

The cumulative grade point average (CGPA) will be the grade point average calculated using the student's entire record in the program. A failed course will continue to be used in the calculation of the CGPA even after the course is repeated and passed, or if a supplemental examination is taken.

3.3 ACADEMIC ADVANCEMENT

There are three categories of standing: Satisfactory, Probationary and Unsatisfactory.

A student must maintain a Satisfactory standing with a GPA of 2.0 or above.

A GPA of less than 2.0 places a student in Unsatisfactory Standing.

Full time students in Satisfactory standing take between 12 and 18 credits per term. A load of 19 credits per term is permitted students whose GPA is above 3.0.

Students in Unsatisfactory Standing must withdraw from the School. They may be readmitted after appeal to the Promotions Committee of the School and subsequently considered on Probationary Standing. A student in Unsatisfactory Standing for the second time will be required to withdraw permanently.

All required courses in the programs in Occupational Therapy and Physical Therapy must be passed with a grade of C or better. A student receiving a D grade in a required course will have to sit a supplemental examination the next time it is given. If at that time a grade of C or better is not obtained, the course must be repeated. If a student obtains a grade of D or F in a course taken as a non-continuation elective, the student may choose to replace it with another such elective.

For any professional course which is subdivided into sections, each section must be passed with a grade of C or better. If a student obtains less than a C grade in a section when the overall course mark is C or better, the course mark will be withheld from the record until a proficiency in each section to a grade of C or better is obtained. The student must sit a second evaluation before the next academic year. If the student still fails to obtain a grade of C or better in that section, the section must be repeated the next time the course is offered and the evaluation done at the next regularly scheduled time. Once the student obtains a grade of C or better in that section, the original course mark will be recorded. If the section is not passed with a grade of C or better after one repetition, the overall mark for the course will revert to a fail (F).

Any student obtaining an F grade in any professional course will be required to repeat that course.

In Occupational Therapy, each clinical placement is considered to be a section of course 580-432B, Clinical Affiliation. Each clinical placement must be passed with a grade of C or better. The student will not be allowed to proceed to the next academic year until all clinical placements have been passed satisfactorily. If more than one clinical placement is failed, the student may be asked to withdraw from the program.

In Physical Therapy, each clinical placement is considered a section of course 581-415D, Clinical Affiliation. Each clinical placement must be passed with a grade of C or better. Students must pass all required sequenced professional courses before commencing the clinical placement associated with those courses. Satisfactory standing in required sequenced professional courses and clinical placements are mandatory to be able to continue in the professional component of the program.

The Faculty reserves the right to require the withdrawal of any student at any time if in the opinion of the instructors the student is incompetent.

3.4 DEGREE REQUIREMENTS

Students must complete a total of 99 course credits for the degree of B.Sc.(Occ.Ther.) or the degree of B.Sc.(Phys.Ther.) (i.e., passed courses whose credit total is 99), have passed satisfactorily all professional courses and have a CGPA at McGill of at least 2.0.

3.5 ACADEMIC CREDIT TRANSFER AGREEMENT

In certain cases, credit may be granted by the Faculty for courses taken at other universities. Approval by the coordinator is necessary and should generally be obtained in advance. The Transfer Credit form is available from the Registrar's Office, F. Cyril James Building.

There is an agreement among the universities in the Province of Québec whereby students, under special circumstances, may take some of their course load in any academic year with Faculty permission at another university in the Province of Québec and have these courses recognized by McGill.

Note: Transfer credits are not calculated in the GPA or CGPA and the grades are not entered on the student's McGill transcript.

3.6 TRANSCRIPT OF ACADEMIC RECORD

Certified transcript(s) of a student's academic record may be obtained by applying to the Registrar's Office, F. Cyril James Building.

All courses taken at McGill and all results obtained appear onthe transcript.

3.7 EXAMINATIONS

Students may write examinations or term papers in English or French.

Instructors are not permitted to grant any special treatment regarding examinations to any student. Faculty requires all instructors to decline to discuss marks with students before their official publication.

Interim Class Tests

Members of the teaching staff may from time to time give interim class tests if they think them necessary.

Final Examinations

Final examinations are held during an examination period following the term in which the course is given. In some courses, there is no final examination; standing in these courses is determined on the basis of term work and class tests.

Supplemental Examinations

Students who have failed an examination and who have been given permission to write a supplemental examination *must avail themselves of this privilege at the time of the next supplemental period* which is held during the month of June for professional courses and the month of August for all other courses. Written application to write a supplemental examination must be received at the Director's Office at least 30 days before the examination period. A fee of $10 for each supplemental paper is payable to the Cashier as soon as the application has been approved.

It should be noted that the supplemental result will not erase the D or F grade originally obtained which was used in calculating the GPA. Both the original mark and the supplemental result will be calculated in the CGPA (i.e., the taking of a supplemental examination has the same effect on a student's GPA as does repeating the course).

Deferred Examinations

A student, who, for reasons such as illness or family affliction, verified and accepted by the Director's Office, has been unable to write one or more examinations, may receive permission to write deferred examinations, which normally will be written in the next supplemental examination period. The Director's Office must be informed within one week of the examination of the reasons for absences. An "L" will appear on the Report of Standing in place of a grade in such courses. It will be replaced by the grade obtained in the deferred examination on official transcripts.

Reassessment of a Grade

Papers are marked and grades calculated and handled with considerable care. However, if students wish to have their marks checked or the examination paper reread, they should apply in writing to the Director's Office. There is a fee of $10 which will be refunded if an error is found in the student's favour. If the result is a lower mark, the lower mark will stand and there will be no refund. Requests for reassessment of standing in more than one course annually will not be permitted.

Incomplete Courses

If, in the instructor's opinion, there is sufficient reason to permit a delay in the submission of required term work, an extension of deadline of up to four months after the end of the course may be granted the student. In this case, the instructor will submit a grade of "K" (incomplete). If a new grade is submitted within the deadline by the instructor, this will appear on the student's Faculty reports and verification forms following the "K" and will replace the "K" on the student's official transcript.

If the required work is not completed before the deadline the grade of "KF" will be recorded in the same way as the grade above. (KF denotes a failed course and has the same effect on the GPA as an F.)

In exceptional circumstances, and with the approval of the Director, the four month deadline may be extended further, in which case the grade of KK will appear.

Students who have not, without an accepted excuse, participated or written the final examination In a course for which they have registered may be given a grade of J (absent).

4 UNDERGRADUATE COURSES OF INSTRUCTION

4.1 BACHELOR OF SCIENCE IN OCCUPATIONAL THERAPY

The curriculum consists of three academic years following a college program plus approximately 600 hours of Clinical Affiliation. The program is made up of 99 credits including the Clinical Affiliation.

First Year

504-315A REGIONAL ANATOMY OF THE LIMBS AND BACK (with Dissection). (4 credits; 2 hours lecture, 4 hours laboratory). (See announcements of the Faculties of Arts and Science).

504-214A SYSTEMIC HUMAN ANATOMY. (3 credits; 2 hours lecture, 2 hours laboratory.) (See announcement of the Faculties of Arts and Science).

552-201A PHYSIOLOGY OF MAN. (3 credits.)

552-202B PHYSIOLOGY OF MAN. (3 credits.) (See announcement of the Faculties of Arts and Science).

582-220A KINESIOLOGY. (2 credits; 2 hours lectures, 1 hour seminar.) Introduction to the

analysis of normal and pathological human movement including static and dynamic force analyses, stability, muscle mechanics and instrumentation.

582-233B NORMAL GROWTH AND DEVELOPMENT. (2 credits; 3 hours lecture.) A course covering normal growth and development from birth to old age using a developmental framework.

582-230B MEDICAL SCIENCE I - PATHOLOGY AND ORTHOPAEDICS. (3 credits; 4 hours per week.) A lecture course consisting of a general introduction to pathology and disorders of the musculoskeletal system including fractures, orthopaedics, rheumatology and related collagen diseases.

580-223A OCCUPATIONAL THERAPY ASSESMENT PROCEDURES. (2 credits; 2 hours lecture, 1 hour laboratory.) A course to include the methods of physical evaluation, communication and patient interview skills.

580-224B OCCUPATIONAL THERAPY APPLIED - PHYSICAL DISABILITIES I. (2 credits; 2 hours lecture, 1 hour seminar.) A course to include occupational therapy as it applies to the treatment of conditions studied in Medical Science 582-230B.

ELECTIVES

(See note on Electives following)

CLINICAL AFFILIATION

To be arranged during the academic year or within the four months following the end of term.

Second Year

504-321A GENERAL HUMAN NEUROANATOMY. (3 credits.) General neuroanatomy emphasizing the structure and function of the brain and spinal cord.

582-334D MEDICAL SCIENCE II - MEDICINE AND SURGERY. (4 credits; 3 hours per week). A lecture course to include the pathophysiology and clinical features of medical and surgical conditions, obstetrics and gynecology, cardiovascular and neurological conditions.

580-330A MEDICAL SCIENCE III - PSYCHIATRY. (3 credits; 4 hours per week.) A lecture course to include the theoretical and clinical features of child, adolescent and adult psychiatric conditions.

582-455B NEUROPHYSIOLOGY. (3 credits; 3 hours per week.) A study of neurophysiological principles of sensori-perceptuomotor interaction as they relate to postural integration, motor control and higher behaviour.

580-322D OCCUPATIONAL THERAPY APPLIED - PSYCHIATRY. (4 credits; 4 hours per week.) A course to include occupational therapy as it applies to the treatment of psychiatric conditions covered in 580-330A.

580-326D OCCUPATIONAL THERAPY APPLIED - PHYSICAL DISABILITIES II. (3 credits; total of 72 hours laboratory and seminars.) A course to include occupational therapy as it applies to the treatment of conditions studied in Medical Science 582-334D.

580-324B OCCUPATIONAL THERAPY APPLIED - PAEDIATRICS. (3 credits; 4 hours per week.) A course to include: a) theoretical remediation approaches to paediatrics b) occupational therapy in paediatrics c) sensory integration - evaluation and treatment in paediatrics.

580-333B ACTIVITY ANALYSIS AND THERAPEUTIC USE. (3 credits; total of 72 hours of laboratory.) A course to include an orientation to and analysis of a variety of activity skills. The adaptation and modification of these activities for specific and systematic therapeutic purposes will be studied.

ELECTIVES

(See note on Electives following)

CLINICAL AFFILIATION

To be arranged during the academic year or within the four months following the end of term.

Third Year

580-425A REHABILITATION CLINICS. (2 credits; 1 hour lecture, 2 hours seminar.) This course is designed to integrate several aspects of patient care through problem identification and the study of a variety of treatments used in physical rehabilitation.

580-424A SPLINTING AND ORTHOTICS. (2 credits; 4 hours laboratory.) A course covering knowledge of therapeutic techniques and biomechanical principles involved in the application and fabrication of static and dynamic splints.

580-427A PROJECTIVE TECHNIQUES. (3 credits.) A course to include the theory, assessment, change detection procedures and the therapeutic use of projective techniques.

582-401A RESEARCH METHODS. (2 credits; 2½

hours per week.) A lecture and seminar course on the principles applied and methods used in clinical and health care research.

582-421A COMMUNITY MEDICINE. (2 credits; 2 hours lecture.) A course in community medicine designed to give the basic epidemiological concepts utilized in the delivery of health care to a community. Particular attention will be given to the organization and availability in Québec.

580-433B GROUP DYNAMICS. (2 credits; 2 hours lecture, 2 hours laboratory.) A course to include the theory of groups, group development and the therapeutic use of groups in Occupational Therapy.

582-404A/B GERONTOLOGY. (2 credits.) A seminar course designed to present an in-depth understanding of gerontology.

582-440B ADMINISTRATION. (2 credits; 2½ hours per week.) A seminar and project course on departmental administration, methods of supervision, professional ethics and medico-legal responsibilities applicable to occupational and physical therapy.

580-430B CLINICAL AFFILIATION. (6 credits.) Clinical experience is provided in the teaching hospitals of the Faculty of Medicine, McGill University and other affiliated centres at suitable periods throughout the three years of the course.

ELECTIVE COURSES

Twenty-four credits are to be taken in elective courses selected from the Announcement of the Faculties of Arts and Science. Within this choice of electives there must be a continuation sequence in a science subject of 18 credits and a 3 credit course in statistics, if not already taken. Two additional credits are to be taken as a professional elective course.

4.2 BACHELOR OF SCIENCE IN PHYSICAL THERAPY

The curriculum consists of three academic years following a college program plus 600 hours of Clinical Affiliation. The total program is made up of 99 credits including the Clinical Affiliation.

First Year

504-315A REGIONAL ANATOMY OF THE LIMBS AND BACK (with Dissection). (4 credits; 2 hours lecture, 4 hours laboratory.) (See announcement of the Faculties of Arts and Science).

504-214A SYSTEMIC HUMAN ANATOMY. (3 credits; 2 hours lecture, 2 hours laboratory.) (See announcement of the Faculties of Arts and Science).

552-201A PHYSIOLOGY OF MAN. (3 credits.)

552-202B PHYSIOLOGY OF MAN. (3 credits.) (See announcement of the Faculties of Arts and Science).

582-220A KINESIOLOGY. (2 credits; 2 hours lecture, 1 hour seminar.) Introduction to the analysis of normal and pathological human movement including static and dynamic force analyses, stability, muscle mechanics and instrumentation.

581-225A INTRODUCTION TO CLINICAL SKILLS. (5 credits; 1 hour lecture, 11 hours laboratory.) Theoretical and practical study of massage, hydrotherapy, normal gait, therapeutic exercise, muscle testing and joint range of motion.

582-230B MEDICAL SCIENCE I - PATHOLOGY AND ORTHOPAEDICS. (3 credits; 4 hours lecture.) A lecture course consisting of a general introduction to pathology and disorders of the musculoskeletal system including fractures, orthopaedics, rheumatology and related collagen diseases.

582-233B NORMAL GROWTH AND DEVELOPMENT. (2 credits; 3 hours lecture.) Normal growth and development from birth to old age, using a developmental framework.

581-240B PHYSICAL THERAPY APPLIED - ORTHOPAEDICS. (3 credits; 2 hours lecture, 7 hours laboratory.) A course consisting of clinical assessments, recordings and methods of physical treatments of the disorders covered in Medical Science 582-230B.

ELECTIVES
(See note on Electives following)

CLINICAL AFFILIATION

To be arranged during the academic year or within the four months following the end of term.

Second Year

504-321A GENERAL HUMAN NEUROANATOMY. (3 credits; 2 hours lectures, 2 hours laboratory.) General neuroanatomy emphasizing the structure and function of the brain and spinal cord.

582-334D MEDICAL SCIENCE II - MEDICINE AND SURGERY. (4 credits; 3 hours per week.) A lecture course including the pathophysiology and clinical features of medical and surgical condi-

tions, obstetrics and gynecology, cardiovascular and neurological conditions.

581-340A EXERCISE PHYSIOLOGY. (3 credits; 3 hours lecture, 1 hour seminar.) A lecture course to include the effects of exercise and training on the neuromuscular system and the various support systems (cardiovascular, respiratory and endocrine).

581-314A PHYSICAL THERAPY APPLIED - MEDICINE AND SURGERY. (2 credits; 4 hours laboratory.) A course consisting of clinical assessments, recordings and methods of physical treatment of the medical and surgical conditions covered in Medical Science 582-334D.

581-318B PHYSICAL THERAPY APPLIED - NEUROLOGY. (3 credits; 8 hours laboratory.) Clinical assessments and methods of treatment (Bobath, PNF, Brunstrom, etc.) of neurological conditions covered in Medical Science 581-314A.

581-328D ELECTROTHERAPY AND INSTRUMENTATION. (4 credits; 8 hours per week.) A theoretical and practical course covering physical principles and techniques of application of electrodiagnostic procedures, electrotherapy, heat therapy, cryotherapy, radiation therapy, transcutaneous electrical stimulation, interferential currents, biofeedback and EMG.

582-455B NEUROPHYSIOLOGY. (3 credits; 3 hours per week.) A study of neurophysiological principles of sensori-perceptuomotor interaction as they relate to postural integration, motor control and higher behaviour.

ELECTIVES

(See note on Electives following)

CLINICAL AFFILIATION

To be arranged during the academic year or within the four months following the end of term.

Third Year

582-421A COMMUNITY MEDICINE. (2 credits; 2 hours lecture.) A course in community medicine designed to give the basic epidemiological concepts utilized in the delivery of health care to a community. Particular attention will be given to the organization and availability of services in Québec.

582-401A RESEARCH METHODS. (2 credits; 2 hours per week.) A lecture and seminar course on the principles applied and methods used in clinical and health care research.

581-422B PSYCHIATRY. (2 credits; 2 hours lecture, 1 hour seminar.) A lecture course in psychiatry as it applies to the psychological problems of the physically ill or disabled.

582-440B ADMINISTRATION AND PROFESSIONALISM. (2 credits; 2 hours per week.) A seminar course on departmental administration, methods of supervision, professional ethics and medico-legal responsibilities applicable to therapists. The course includes a study of the professional associations and educational and governmental influences on the development of the professions.

581-435B CO-ORDINATED REHABILITATION. (3 credits; 3 hours per week.) A study of the interdisciplinary approach to rehabilitation.

582-404A/B GERONTOLOGY. (2 credits.) A seminar course designed to present an in-depth understanding of gerontology.

581-415D CLINICAL AFFILIATION. (6 credits; 600 hours of clinical experience carried out during the three year program at selected intervals.) Supervised clinical practice is provided for students in the following areas; physiotherapy departments in hospitals and rehabilitation centres affiliated to the Faculty of Medicine, convalescent and home care facilities, specialized schools and community centres.

This course commences during the academic year UI and continues throughout the program.

ELECTIVE COURSES

Twenty-four credits are to be taken in elective courses selected from the *Announcement of the Faculties of Arts and Sciences.* Within this choice of electives there must be a continuation sequence in a science subject of 18 credits and a 3 credit course in statistics, if not already taken. Six additional credits are to be taken as professional elective courses.

4.3 UNDERGRADUATE PROFESSIONAL ELECTIVE COURSES

The following courses are open to senior students in the Health Sciences by permission of the coordinator. These courses may be taken as part of the undergraduate program in Occupational Therapy or Physical Therapy.

582-402A/B ADVANCED RHEUMATOLOGY. (2 credits; 2 hours per week.) A seminar course emphasizing a multidisciplinary approach to the evaluation and total care of patients with rheumatic diseases. (Prerequisite: Basic knowledge of the rheumatic diseases and clinical experience in the treatment of physical disabilities.)

582-403A/B PAEDIATRICS. (2 credits; 2 hours per week.) A seminar and project course to include neuropsychology, information processes, conditions of learning and child development as it applies to paediatric therapy.

582-405A/B SPORTS MEDICINE. (2 credits; 3 hours per week.) A course to include seminars, practical sessions and field work designed to familiarize the student with the various problems involved in treating athletes and to develop a basic skill in assessment of and first and for athletic injuries. Techniques of taping, treatment modalities and rehabilitation procedures for athletes will be included.

582-406A/B PAEDIATRIC ORTHOPAEDICS. (2 credits; 3 hours per week for 9 weeks.) A seminar and project course designed to introduce the team approach to the management of paediatric orthopaedic problems with particular emphasis on the role of the physical therapist in assessment procedures and treatment planning.

582-407A/B MANUAL THERAPY. (2 credits; 2 hours per week.) A didactic and practical course designed to introduce students to the principles and application of manual therapy.

582-408A CONNECTIVE TISSUE MASSAGE. (2 credits; 2 hours per week.) A practical course designed to introduce students to the principles, basic techniques and application of connective tissue massage.

582-409A/B SENSORY INTEGRATION. (2 credits.) A seminar course to include the application of neurophysiological principles to theoretical models, evaluation and therapeutic application in psychiatry, physical medicine and paediatrics.

582-430A/B CHILD AND ADOLESCENT PSYCHIATRY. (2 credits; 2 hours per week.) A specialized course in psychiatric occupational therapy to include an orientation to children and adolescents with psychiatric disorders as well as the evaluation and remediation techniques used in the occupational therapy treatment of these children.

582-434A/B BIOMECHANICS. (2 credits; 2 hours lecture, 1 hour seminar.) A lecture seminar course covering current literature on EMG, muscle mechanics and gait. A relevant laboratory will be given on each topic.

5 POSTGRADUATE COURSES

5.1 GENERAL COURSES

The following courses are open to graduate Physical Therapists and Occupational Therapists:

581-414B PROPRIOCEPTIVE NEUROMUSCULAR FACILITATION

581-416B NEURODEVELOPMENTAL APPROACH TO TREATMENT (BOBATH CONCEPT)

5.2 MASTER OF SCIENCE IN HEALTH SCIENCES (REHABILITATION)

ADMISSIONS REQUIREMENTS

1. A B.Sc. degree with special training in one of the Medical Rehabilitation disciplines or a related field with a high B or second class standing.
2. Successful completion of an accredited university course within the last five years.
3. Pre-requisites:- introductory courses may be required in statistics, research methodology, anatomy, physiology, psychology, sociology, neurophysiology and others, depending on the area of specialization.
4. Two years of general clinical experience is recommended.

APPLICATION

Application for admission to this program should be made directly to the Coordinator of Graduate Program, School of Physical and Occupational Therapy, 3654 Drummond Street, Montreal H3G 1Y5.

PROGRAM REQUIREMENTS

The program normally requires two full academic years to complete. Upon recommendation by the Faculty of Graduate Studies and Research and by the School of Physical and Occupational Therapy, this requirement may be reduced for exceptionally well-qualified candidates.

A total equivalent to a weighting of 60 credits is required by the Curriculum and generally divided as follows:-

- Required courses (12-15 credits)
- Courses pertaining to area of specialization (9-12 credits)
- Master's thesis (36 credits)

REQUIRED COURSES

A graduate course in statistic is required. Either one of the following is recommended:

513-607A PRINCIPLES OF INFERENTIAL STATISTICS IN MEDICINE.
Department of Epidemiology and Health

or

414-602D THE USES OF STATISTICS IN EDUCATIONAL PROCEDURES.
Professor S. Rapagna
Department of Educational Psychology an Sociology

581-610B RESEARCH METHODOLOGY. An advanced lecture and seminar course with laboratory demonstration. Philosophy of scientific inquiry, principles of research design, basic instrumentation and application of statistical techniques are discussed with special considerations to research studies in health care rehabilitation.
Note: Pre-requisites: 513-607A or 414-602D or equivalent and 582-401A or equivalent.
Professors M. Piper and C. Chan

581-614A REHABILITATION DEVELOPMENT I. A weekly multidisciplinary seminar course designed to survey current research in Rehabilitation.
Professor S. Dauphinée

581-616B REHABILITATION DEVELOPMENT II. A weekly seminar course by staff, invited speakers and students designed for critical review and in-depth discussion of selected topics in Rehabilitation.
Professor C. Chan

MASTER'S THESIS (equivalent to 36 credits.) Students carry out a research study in the chosen area of specialization under the guidance of a supervising committee which consists of an Internal Supervisor (from within the School) and one or two External Advisers (from outside the School).
Graduate Staff in collaboration with the Faculties of Medicine, Education, Management and Graduate Studies and Research.

OPTIONAL COURSES

581-602D EDUCATIONAL METHODOLOGY. A seminar course designed to elaborate and develop the skills and behaviours which have been identified as indicators of effective teaching. A teaching practicum allows the student to apply the skills learned.
Professor D. Thomas-Edding

- **581-6034A/B CURRICULUM DEVELOPMENT.** A seminar course designed to elaborate and develop the skills and behaviours which have been identified as indicators of effective teaching. A teaching practicum allows the student to apply the skills learned. A course emphasizing current thought in rehabilitation, curriculum development and factors underlying curriculum planning.
Professor D. Thomas-Edding

- **581-612B COMMUNITY HEALTH NEEDS.** Analysis of social trends and problems influencing the present practice and future development of health care, delivery systems with particular emphasis on rehabilitation in the Province of Québec.
Professor S. Dauphinée

With the approval of the Program Coordinator, students may select graduate or advanced undergraduate courses offered by the Faculties of Graduate Studies and Research, Medicine, Education and Management.

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including Institute of Islamic Studies

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Montreal

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3520 University Street
Montreal, PQ, Canada H3A 2A7
Telephone (514) 392-4828

INSTITUTE OF ISLAMIC STUDIES

817 Stephen Leacock Building, McGill Campus
855 Sherbrooke Street West
Montreal, PQ, Canada H3A 2T7
Telephone (514) 392-5198

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The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

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CALENDAR FOR SESSION 1982-1983

1982

August 3, Tuesday to August 13, Friday	Supplemental examinations
September 7, Tuesday to September 10, Friday	Registration: M.A. and Ph.D. candidates — Institute of Islamic Studies
September 9, Thursday	Registration: B.Th. all years (9 a.m. to 5 p.m., Currie Gymnasium)
September 8, Wednesday	Registration: S.T.M. and M.A. candidates (9 a.m. to 12 noon, W. and H. Birks Building)
September 10, Friday	Registration: Ph.D. candidates (9 a.m. to 12 noon, W. and H. Birks Building)
September 13, Monday	ALL CLASSES BEGIN
September 16, Thursday	Assembly at Noon
September 27, Monday to October 1, Friday	Change of course period
October 4, Monday and October 5, Tuesday	Alumni Reunion and the Birks Lectures
October 11, Monday	Thanksgiving Holiday
October 25, Monday to October 29, Friday	Course Verification period
November, 1, Monday	Deadline for withdrawing (W) from Fall term (A) courses
TBA	Fall Convocation
December 10, Friday	Deadline for withdrawing (W) from full year (D) courses
December 10, Friday	Last day of classes
December 13, Monday to December 23, Thursday	Examinations in Fall term courses and Class Tests

1983

January 5, Wednesday	Winter term begins
January 6, Thursday	Registration new students
January 17, Monday to January 21, Friday	Change of course period
February 4, Friday and February 5, Saturday	Mid-term holiday (Winter Carnival)
February 15, Tuesday	Last day for applying for Graduate Fellowships
February 14, Monday to February 18, Friday	Course Verification period
February 21, Monday	Deadline for withdrawing (W) from Winter term (B) courses
February 24, Thursday and February 25, Friday	Study Break
March 14, Monday	Last day for submitting Doctoral theses for spring Convocation
March 21, Monday	Last day for submitting Masters' theses for spring Convocation
April 1, Friday to April 4, Monday	Easter
April 8, Friday	Last day of classes
April 11, Monday to April 13, Wednesday	End of term break
April 14, Thursday to April 29, Friday	Examinations in Winter term and full year courses (if required)
TBA	Convocation: Religious Studies

1 STAFF

1.1 ADMINISTRATIVE OFFICERS

UNIVERSITY

DAVID L. JOHNSTON, A.B.(Harv.). L.L.B. (Cantab. & Queen's), LL.D.(L.S.U.C.)
Principal and Vice-Chancellor

S.O. FREEDMAN, B.Sc., M.D., C.M.(McG.), F.R.C.P.(C), F.A.C.P., F.R.S.C.
Vice-Principal (Academic)

JOHN ARMOUR, AACCA
Vice-Principal (Administration and Finance)

E.J. STANSBURY, M.A., Ph.D.(Tor.)
Vice-Principal (Planning and Academic Services)

G.A. MACLACHLAN, B.Sc., M.A.(Sask.), Ph.D (Man.) **Vice-Principal (Research)**

L.E. LLOYD, B.Sc.(Agr.) M.Sc., Ph.D.(McG.)
Vice-Principal (Macdonald Campus)

COLIN M. McDOUGALL, D.S.O., B.A.(McG.)
Secretary-General

MICHAEL HERSCHORN, B.A., M.A., PH.D. (McG.) **Dean of Students**

JEAN-PAUL SCHULLER, B.A.(Ott.) **Registrar**

PEGGY SHEPPARD, B.Ed.(McG.), B.A.(Sir G. Wms.) **Director, Admissions Office**

ALTA ABRAMOWITZ, B.A., M.Ed.(McG.)
Director, Information & Liaison Office

MARIANNE SCOTT, B.A., B.L.S.(McG.)
Director, University Libraries

FACULTY

JOSEPH CUMMING McLELLAND, B.A.(McM.), M.A.(Tor.), B.D.(Knox, Tor.), Ph.D.(Edin.), D.D. (Mtl.Dio.Coll., Knox, Tor.)
Dean of the Faculty

ROBERT W. STEVENSON, B.A., B.D.(McG.) A.M., Ph.D.(Harv.) **Assistant Dean**

CHARLES JOSEPH ADAMS, A.B.(Baylor), Ph.D. (Chic.) **Director, Institute of Islamic Studies**

DONALD P. LITTLE, B.A.(Vanderbilt), M.A. (Stan.), Ph.D.(U.C.L.A.) **Assistant Director, Institute of Islamic Studies**

JOANNE BRAIS, B.A.(Mt.Allison), Administrative Secretary, Religious Studies, (514) 392-4828

JOAN NAYLOR, B.A.(Mt.Allison), Administrative Assistant, Institute of Islamic Studies, (514) 392-5198

1.2 TEACHING STAFF — RELIGIOUS STUDIES

CHARLES JOSEPH ADAMS, A.B.(Baylor), Ph.D.(Chic.) **Professor of the Islamic Tradition**

ROBERT CHARLES CULLEY, M.A., B.D.(Knox, Tor.), Ph.D.(Tor.) **Professor of Old Testament**

DOUGLAS JOHN HALL, B.A.(W.Ont.). M.Div., S.T.M., Th.D.(U.T.S., N.Y.) **Professor of Christian Theology**

JOSEPH CUMMING McLELLAND, B.A.(Mc.M.), M.A.(Tor.), B.D.(Knox, Tor.), Ph.D.(Edin.), D.D.(Mtl.Dio.Coll.; Knox, Tor.)
McConnell Professor of Philosophy of Religion

JOHN ARTHUR BOORMAN, B.A.(Alta.), M.A., Ph.D.(Col.), D.D.(Mtl.Dio. Coll.)
Associate Professor of Theological Ethics

EDWARD J. FURCHA, B.A.(McM.), B.D.(McG.), Ph.D.(Hartfd.) **Associate Professor of Church History**

WILLIAM MICHAEL LAWLOR, B.Com.(Loyola, Mtl.), B.Ed.(Montr.), M.A., Ph.D.(Ott.)
Associate Professor of Catholic Studies

DONNA RUTH RUNNALLS, B.A.(U.B.C.), B.D.(McG.), Ph.D.(Tor.) **Associate Professor of Old Testament and Judaism**

ROBERT W. STEVENSON, B.A., B.D.(McG.), A.M., Ph.D.(Harv.) **Associate Professor of Comparative Religion**

FREDERIK WISSE, Ing.(Utrecht), B.A., B.D. (Calvin, Mich.), Ph.D.(Claremont)
Associate Professor of New Testament

KATHERINE K. YOUNG, B.A.(Vermont), M.A.(Chic.), Ph.D.(McG.) **Associate Professor of Comparative Religion**

TELWATTE RAHULA, B.A.(Kel'ya), M.A. (Ban.), Ph.D.(Delhi) **Assistant Professor of Comparative Religion**

N. THOMAS WRIGHT, B.A., M.A., D.Phil.(Oxon.)
Assistant Professor of New Testament

ALAKA HEJIB, B.A., M.A.(Poona)
Lecturer, Comparative Religion

PIERRE J. GOLDBERGER, B.A., B.Sc.(McG.), L.Th.(Montpellier), D.E.A.(Geneva)
Faculty Lecturer, Theology

GEORGE JOHNSTON, M.A., B.D., D.D.(Glas.), Ph.D.(Cantab.), D.D.(U.T.C., Mtl.; Mtl.Dio. Coll.), LL.D.(Mt.Allison) **Faculty Lecturer, Church History**

W.J. KLEMPA, B.A.(Man.), M.A.(Tor.), B.D. (Knox, Tor.), Ph.D.(Edin.) **Faculty Lecturer, Theology**

JOHN I. McNAB, B.D.(King's Coll., Lond.), S.T.M., Ph.D.(McG.) **Faculty Lecturer, Liturgics**

MONROE PEASTON, M.A.(Oxon.), B.D.(Lond.). Ph.D.(U.T.S., New York), D.D.(Mtl.Dio.Coll.) **Faculty Lecturer, Pastoral Psychology**

ARTHUR VAN SETERS, B.A.(Tor.), B.D. (Westminster Sem.), Th.M., Th.D.(Union Sem.) **Faculty Lecturer, Old Testament**

1.3 *TEACHING STAFF — INSTITUTE OF ISLAMIC STUDIES*

Director and Professor

CHARLES JOSEPH ADAMS, A.B.(Baylor), Ph.D.(Chic.)

Professors

AHMAD ABU-HAKIMA, B.A., M.A.(Cairo), Ph.D.(Lond.)

ISSA J. BOULLATA, B.A., Ph.D.(Lond.)

HERMANN A. LANDOLT, Dipl.(Sorb.), Ph.D. (Basel) (on leave 1982-83)

DONALD P. LITTLE, B.A.(Vanderbilt), M.A. (Stan.), Ph.D.(UCLA)

Assistant Professors

M. HASHIM KAMALI, B.A.(Kabul), LL.M., Ph.D.(Lond.)

A. UNER TURGAY, B.A.(Robert Coll., Istanbul), M.A., Ph.D.(Wis., Madison)

Visiting Professor

MEHDI MOHAGHEGH, B.A., M.A., Ph.D. (Tehran)

1.4 *LIBRARY STAFF — RELIGIOUS STUDIES*

NORMA JOHNSTON, B.A.(Sir G. Wms.), B.L.S., M.L.S.(McG.) **Librarian**

JENNIFER GOLDSMITH **Library Assistant**

TAPAS MAJUMDAR **Library Assistant**

JENNIFER WHEELER **Library Assistant**

1.5 *LIBRARY STAFF — INSTITUTE OF ISLAMIC STUDIES*

RAJA DIRLIK, B.A.(A.U.B.), B.L.S., M.L.S.(McG.) **Librarian**

JAN W. WERYHO, B.A., M.A.(Oxon.) **Specialist Librarian**

2 GENERAL INFORMATION

History

The faculty and the Colleges

During the nineteenth century several Theological Colleges in Montreal became affiliated with McGill. In 1912 they formed a Joint Board for the academic study of Theology, leaving each denominational College to provide its own professional training for Christian ministry. These relationships between the colleges and between them and the University led naturally to the creation in 1948 of a Faculty of Divinity which assumed the academic functions of the Joint Board. This University Faculty now offers the B.Th. and graduate degree programs.

Today, the Colleges affiliated with the Faculty are: Montreal Diocesan Theological College of the Anglican Church of Canada; Presbyterian College; United Theological College of the United Church of Canada. They are all located in close proximity to the University Campus. In 1973 the Colleges pooled their resources in the Montreal Institute for Ministry to provide jointly professional training for ministry. The Colleges now also confer a Master of Divinity degree on their successful candidates for ordination.

Theology and Religious Studies

The original Faculty of Divinity not only taught theological courses for ordinands; it also engaged in teaching undergraduates in other faculties, a small selection of courses of more general interest — philosophy and psychology of religion, history of western thought. This has grown over the years into the present Honours and Major programs in Religious Studies, within the Faculty of Arts, and in 1970 the name of the Faculty was changed to the Faculty of Religious Studies to reflect the new emphasis on "the academic study of religion" in higher education. Although this

represents a method of examining the data of religion distinct from classical theology, it is the presence of both approaches within one Faculty which provides the intellectual environment necessary for the integrity of each.

Facilities

The faculty of Religious Studies is located in the handsome building (erected in 1930) known as the William and Henry Birks Building, formerly Divinity Hall, at 3520 University Street, Montreal. Besides the usual classrooms, offices, and common rooms, this building contains the University Chapel in the Collegiate style.

The library of the Faculty contains over 64,000 items in the fields of theology, philosophy, church history, and related subjects. It includes the former collections of the United Theological College and the Montreal Diocesan Theological College. Some of the holdings for the nearby Presbyterian College Library are recorded in the Library's catalogue. In addition, students have access to all the resources of the McGill University Libraries System.

The Institute of Islamic Studies was founded in 1952. It is located in the Stephen Leacock Building (8th and 9th floors). See Section 6, below.

Birks Lectures

An annual series was established in 1950 through the generosity of the late William M. Birks. The lectures are given by distinguished visitors in October, in connection with the Alumni Reunion. The first lecturer was The Right Reverend Leslie Hunter; in recent years lecturers have included Huston Smith, Northrop Frye, Wilfred Cantwell Smith, Gregory Baum, Robert McAfee Brown and Krister Stendahl.

Programs Offered and Admission Requirements

Mature Students Admission Policy

B.A. Program.

Residents of Canada who will be 23 years of age or older by September 1st (for admission to the fall session) or January 1st (for admission to the winter session) and who lack the academic background normally required for admission to undergraduate programs may apply for entrance as mature students.

Individuals interested in being considered for entrance under this policy should contact the University Admissions office for further information.

B.Th. Program.

Residents of Canada who will be 27 years of age or older by September 1st (for admission to the fall session) or January 1st (for admission to the winter session) and who lack the academic background normally required for the B.Th. program may apply for entrance as mature students. If accepted, such students are required to take a qualifying year (30 credits) consisting of Arts courses before the 90 credit B.Th. program. Post-secondary credits and/or relevant experience may be considered for credit towards this qualifying year.

BACHELOR OF ARTS IN RELIGIOUS STUDIES

Honours and Major programs are offered in cooperation with the Faculty of Arts. See Section 4, below.

BACHELOR OF THEOLOGY

The Bachelor of Theology (B.Th.) degree is a three-year (90 credits) program following the Collegial Diploma (D.C.S.). Candidates are normally admitted to the two-year (60 credit) program following a Bachelor's degree.

Admission to the B.Th. is granted to any qualified persons, whatever their religious affiliation, who wish to pursue studies in religion and theology at first degree level. In the Province of Québec the B.Th. fulfils the requirements for a "first professional degree".

Candidates should normally be required to give satisfactory evidence of one of the following before their enrolment for this degree:

a) The Diploma of Collegial Studies (D.C.S.) of a Québec CEGEP. Courses of introduction to world religions and possibly other courses in religion would be helpful but are not prerequisites. A minimum average of 65% is required.

b) A bachelor's degree in Arts or Science or Engineering or Commerce or Education or Music or the like, whether it contains courses in religion or theology, or not. Those who hold such a degree will normally be admitted directly to B.Th.2. A minimum CGPA of 2.0 is required.

While the B.Th. is a first professional degree, it does not of itself necessarily qualify the holder for employment in religious institutions. The latter usually have their own, additional requirements. For example, the three Theological Colleges affiliated with the Faculty (see History above) will normally expect their ordination candidates who qualify to do so, to proceed by way of their M. Div. Program.

M. Div. Program

Students who have completed a first degree prior to the B.Th., and have a minimum CGFA of 2.5, are eligible to apply the B.Th. degree towards the Master of Divinity (M.Div.) degree conferred by the colleges. This degree requires successful involvement in integrative seminars during the B.Th. years and an additional year of study beyond the B.Th., the "professional year", supervised by the Montreal Institute for Ministry. (See History, above). M.I.M. represents the combined resources of the three affiliated colleges and maintains a positive relationship to the Faculty of Religious Studies as part of the larger community of theological scholarship.

Prospective candidates for ordination may also proceed via a B.A. with honours or a major in religious studies with a view to entering the S.T.M. program. (See section 4, for B.A. programs; and S.T.M. below and in Section 5).

The affiliated Colleges underwrite the cost of tuition for their properly registered candidates for ministry. Information about Church requirements and the professional year should be sought from the College Principals.

It should be noted that one biblical language, usually Greek, is required by some of the Churches. Ministerial candidates are required to consult with their college advisers regarding pre-requisites for biblical languages.

See also Section 4, Regulations for the B.Th. Degree.

Graduate Programs

The faculty of Graduate Studies and Research, located in Dawson Hall, directs and controls all programs leading to higher degrees and recommends candidates to the Senate for these degrees. As a Department within it, the Faculty of Religious Studies offers courses leading to the degrees of Master of Sacred Theology (S.T.M.), Master of Arts (M.A.) and Doctor of Philosophy (Ph.D.).

MASTER OF ARTS

The purpose of this degree is to encourage advanced study and research in religious studies and theology, especially for those who wish to become scholars or teachers and those who are already engaged in some field of religious service. Candidates must possess a B.A. or equivalent degree (e.g., B.Th., M.Div.), normaly with at least a good second class standing (B+ or CGPA 3.3) in a major or honours program in religious studies or theology from a University or College that is accredited in North America.

In certains cases candidates may be advised to take a Qualifying Year before entering the M.A.

See also Section 5.

MASTER OF SACRED THEOLOGY (S.T.M.).

The S.T.M. is meant for those who intend to enter the ministry of the Christian Church or another religious institution, or proceed to teaching in schools or to some form of social work.

Candidates must possess a B.A., normally with at least a good second class standing (B+ or CGPA 3.3) in a major or honours program in religious studies or theology from an accredited university or college. Those who also have a McGill B.Th. or an equivalent degree, with good second class standing, may be admitted to the second year of the S.T.M. program.

See also Section 5.

NOTE: Professional training is available to S.T.M. graduates through the Montreal Institute for Ministry described under *Bachelor of Theology*, above. McGill also has a Faculty of Education and a School of Social Work.

DOCTOR OF PHILOSOPHY (Ph.D.)

The purpose of the Ph.D. program is to engage students in academic studies at the highest level and to enable them if they so wish to prepare themselves for an academic career. It normally requires three years of residence beyond the bachelor's degree, and two beyond the master's.

Candidates shall normally possess an accredited M.A. in Religion or Theology, or the S.T.M., with at least high second class standing and recommendation for doctoral study; or such other degree as the Faculty may accept as equivalent to the McGill M.A. or S.T.M. Applicants for doctoral programs are expected to submit a substantial example of written work (15-20 pages) with their applications. The Faculty is prepared to guide students in thesis research in each of the following subjects: Old Testament, New Testament, Church History, Christian Theology, Theological Ethics, Philosophy of Religion, and Comparative Study.

See also Section 5.

Application and Registration

a) For the B.A. Honours and Major programs in Religious Studies, see Section 4.

b) Intending candidates for the B.Th. should submit to the Dean an application with supporting documents as early as possible and not later than August 1, 1982 for Fall admission, or October 31, 1982 for January admission. Supporting documents are: official transcripts of previous academic work, and two letters of reference.
Applicants for the B.Th. who intend to proceed to the College M.Div. need to apply at the same time to one of the affiliated Theological Colleges. Applicants who seek an M.Div. but do not wish to be associated with one of the Theological Colleges should apply to the Academic Council of the Joint Board of Theological Colleges, c/o the Dean of this Faculty.

c) For the S.T.M., M.A. and Ph.D. degrees applications must be made with the necessary transcripts and letters of reference to the *Dean of Religious Studies* in order that appropriate recommendations may be made to the Faculty of Graduate Studies and Research which ultimately controls all advanced degree programs. Applications for Fall admission must be received by February 15. Late applications may be considered up to the first week in July. Applications for January admission must be received by October 15. Decisions will be reached a month after deadlines. Applications for the graduate programs in Islamic Studies should be sent to the Director of the Institute as early as possible.

d) The sessional *inscription* of returning graduate students and new admissions to graduate study is conducted by mail. Forms and fee sheets are sent out in May and June each year and these should be returned to the Dean of Religious Studies by the date indicated.

Registration for the different degree programs will take place on the dates specified in the Calendar listing on page 4 of this announcement. Students registering after these dates must pay the special fee for late registration. Graduate candidates who have received permission to take an Additional Session (Non-Resident) may pay the fee by mail.

Categories of students

Undergraduate

FULL-TIME

Students who are admitted to the B.Th. program and who are taking not less than 12 credits per term. The normal course load is 15 credits. A load of up to 18 credits per term is permitted to students whose GPA is above 3.0.

PART-TIME

Undergraduate students in a degree program who are not full-time, i.e., students taking fewer than 12 credits per term if in satisfactory standing, or fewer than 10 credits if in probationary standing.

VISITING

A visiting student is one who is taking courses at McGill for credit at another university.

SPECIAL

Students not registered as proceeding to a degree but who receive the permission of the Dean and Faculty to undertake certain regular credit courses.

GRADUATE

Students of this Faculty who are enrolled in the Faculty of Graduate Studies and Research as candidates for the degrees of S.T.M., M.A. or Ph.D. They are normally Full-Time students but may proceed on a Part-Time basis by special permission. Visiting and Special Students (described above) are also accepted.

Academic Credit Transfer Agreement

Students wishing to take courses for credit towards their McGill degree at any university in the Province of Québec should refer to the section entitled "Academic Credit Transfer Agreement" in the University's *General Announcement* for details.

Fees

The University reserves the right to make changes without notice in the published scale of fees.

In the B.Th. Program tuition fees are $19 per credit (hence $570 for the normal full load of 30 credits per session). There is also a fee of $95 for Student Services and $50.50 for the Students' Society for all students. Ministerial candidates' fees are usually underwritten by their Church Colleges.

Graduate Studies:	Tuition	Student Services	Students Societies
Master's Full Time	$570	$95	$43.50
Master's Additional Sessions	40	95*	17.70

Full Time			
Doctorate	570	95	43.50
Additional Sessions			
Doctorate	40	95*	17.70

* Student Services Fees for additional session students are optional. Arrangements can be made at the Department of Athletics or the Dean of Students' Office.

New foreign students are required by the Québec government to pay 60% of the estimated cost of their studies. In 1981-82 this was $4,128 per year or $137.60 per credit. The rate for 1982-83 will be announced as soon as it is determined by the government. Returning foreign students will pay $3,500 per year or $116.70 per credit and an additional $1,000 per year in each subsequent year until they reach the rate paid by newly admitted foreign students.

PART-TIME, SPECIAL AND VISITING STUDENTS — UNDERGRADUATE

$19 per credit will be assessed and in addition, the following fees will be assessed **per term:**

a) If taking 9 credits and over:
   Student Services $47.50
   Students' Societies $25.25
b) If taking 6.5 to 8.5 credits:
   Student Services* $25.50
   Students' Societies ..... $ 7.95
c) If taking 3.5 to 6 credits
   Student Services* $15.75
   Students' Societies ..... $ 7.95
d) If taking 3 credits or less
   Student Services* ..... $ 9.50
   Students' Societies ..... $ 7.95

GRADUATE STUDENTS

For information concerning fees for Part-time, Special and Visiting students see *Graduate Studies Announcement.*

SPECIAL FEES AND PENALTIES

Application for Admission **	$15.00
Late registration	$50.00
Late payment fee (after specified date):	
1st 30 days	10.00
After 30 days	25.00
Application for Graduation Fee***	20.00
Duplicate Student Identity Card	5.00
Duplicate diploma	20.00
Certified transcript of students record: ****	
First copy with each order	2.25
Additional copies made at The same time, each	.75
Re-reading examination paper	10.00
Supplemental examinations, each paper	10.00

***Excludes use of Athletics facilities: An extra payment of $47.50 may be made for use of these facilities if desired. This can be arranged at the Department of Athletics or the office of the Dean of Students.**

****Students already at McGill who are making application to a professional faculty or to the Faculty of Graduate Studies and Research are not required to pay this fee.**

*****Application for Graduation Fee: Applications by students who expect to graduate at the Spring Convocation must be filed by April 1st of each year and by those who expect to graduate at the Fall Convocation by October 15th of each year. An application form will be mailed to each eligible student and must be returned to the Registrar's Office together with the fee of $25 by the appropriate date listed above. Students are responsible for ensuring that their names are included in the graduation list by notifying the Dean's office that they expect to graduate.**

******The University will only issue complete transcripts recording all work attempted and results obtained in any and all programs, and partial transcripts will in no circumstances be issued.**

Regulations for Payment of Fees

NEW STUDENTS

Students entering the University for the first time and those returning in Graduate Studies are required to pay their fees for the term in which they are registered either by mail or in person at the Accounting Office within 10 days after registration. For students registering in September the Winter term fees are due before January 15, 1983.

RETURNING STUDENTS

Returning students from the previous year (except in Graduate Studies) must pay one half of the total required fee by mail or in person to the Accounting Office before August 23, 1982, otherwise they will not be permitted to register. Instructions for paying fees in advance will be mailed to all returning students, either with their Sessional Reports of Standing or a short time later. Students who have been notified by the University of the award of a scholarship, bursary or student loan, and who require this award for payment of the Fall term fees, must obtain permission to delay payment of fees from the Student Aid Office.

The Winter term fees are due by January 15, 1983. A late payment fee as stated above is charged for payment after this date.

LATE REGISTRATION

Students registering late must pay their fees at the time of registration.

Transcripts of record, diplomas and permission to re-register will be withheld if tuition fees as well as outstanding residence fees, library fines, or other charges are not paid by the prescribed dates.

Regulations Concerning Withdrawal

Students who wish to withdraw from the University or from certain courses must secure the permission of the Dean of their Faculty. The Office of the Dean will supply the necessary form which must be completed and submitted. As the Student ID Card is the property of the University, students withdrawing from all their courses must attach their Student Identity Card to the withdrawal form. *A student considering withdrawal is strongly advised to consult the Dean before making a final decision*

Tuition fees for the term in which the student withdraws are refundable as shown below and apply to *individual course* withdrawal as well as to complete withdrawal from the University.

Fall Term

Up to two weeks after the end of the final course change period or September 30, whichever is earlier. (less minimum charge of $50 in the case of complete withdrawal)	100%
Up to and including October 15	50%
After October 15	No refund

Winter Term

Up to two weeks after the end of final course change period or January 31, whichever is earlier. (less minimum charge of $50 in the case of complete withdrawal)	100%
Up to and including February 15	50%
After February 15	No refund

These dates do not necessarily and are not intended to coincide with the dates given for withdrawal from courses.

If students wish to discuss the refund policy applicable to a special case, they must consult the Registrar's Office.

Student Services and Students' Societies fees are not refundable after two weeks after the end of the final course change period in any Faculty, or September 30, whichever is earlier, for the fall term, and after two weeks after the end of the final course change period in any Faculty, or January 31, whichever is earlier, for the winter term.

Credit and Grading Systems

Undergraduate

CREDIT REQUIREMENTS

a) All full courses in Religious Studies have a value of 6 credits, half courses a value of 3 credits.
b) A total of 90 credits must be accumulated in order to qualify for the B.Th. degree. The normal course load in any academic session is five full courses — 30 credits. Not more than 45 credits may be allowed for courses taken before coming to McGill.
c) For students entering the B.Th. program in U2, not more than 15 credits may be allowed for courses taken elsewhere.

GRADING

a) Competence in a course may be determined by examinations and/or essays, or by other means chosen by the instructor and approved by the Dean.
b) The following grades are used:

A	=	85—100%	= 4 points
A-	=	80— 84%	= 3.7 points
B+	=	75— 79%	= 3.3 points
B	=	70— 74%	= 3.0 points
B-	=	65— 69%	= 2.7 points
C+	=	60— 64%	= 2.3 points
C	=	55— 59%	= 2.0 points
D	=	50— 54%	= 1.0 points
F	=	0— 49%	= 0 points

c) For B.Th. courses grades A, B and C are satisfactory passes. D is a conditional pass; F is a failure.
d) In the B.Th., each year's standing is expressed by a Grade Point Average (GPA). It is obtained by multiplying the grade points by the course credit weight and dividing the total of these products by the total credits attempted.
e) A Cumulative Grade Point Average (CGPA) is compiled, using all the student's B.Th. work to date, to indicate the student's overall standing.

Standing

There are three categories of standing:
Satisfactory: a GPA of 2.0 or better.
Probationary: a GPA between 1.5 and 1.99.
Unsatisfactory: a GPA below 1.5.

a) A student with a *high* GPA (at least 3.0) may take more than the normal five full courses and is encouraged to do so.
b) Students in *probationary* standing will be allowed to take no more than four full courses during the academic session, and must raise their CGPA to 2.0 within one academic session. Those who fail to do so will be placed in unsatisfactory standing.
c) A student in *unsatisfactory* standing will have to withdraw, or seek readmission as a probationary student with special permission from the B.Th. Committee and the Dean.
d) The overall record (CGPA) must be *satisfactory* before a student can be recommended for the degree.
e) Normally a student must accumulate the required 90 credits within a period of *five years* from the date of entrance into the B.Th. program.
f) Qualification for the award of the degree shall include satisfactory standing (a grade of C or better) in all required courses, and the accumulation of sufficient acceptable credits through elective courses to make a total of 90 credits.

ACADEMIC ACHIEVEMENT

Several designations are used to acknowledge the superior academic achievement of in-course and graduating students. These designations are awarded at the discretion of Faculty:

a) *Distinction:* to designate graduating students, not in Honours, who have completed a minimum of 60 credits at McGill and achieved a CGPA of 3.30 - 3.49.
b) *Great Distinction:* to designate graduating students, not in Honours, who have completed a minimum of 60 credits at McGill and achieved a CGPA of 3.50 or better.
c) *Honours:* to designate graduating students who have completed a minimum of 60 credits at McGill, including 260-501D, with a grade of B, and have achieved a CGPA of 3.20 or better.
d) *University Scholar:* to designate graduating students with a CGPA of 3.50 or better. This designation applies in addition to those described in b) and c) above; except that it may not normally be awarded to more than 10% of the graduating class.
e) *Faculty Scholar:* to designate in-course students who have completed a minimum of 27 credits during regular session (14 credits for those registered for one term) and have attained a GPA placing them in the top 5-10% of their class.

Graduate

REQUIREMENTS

a) Course requirements for graduate degrees are given in the regulations for each degree in Section 5, Graduate Studies, below.
b) Graduate courses are described as half-courses (one term) or full courses (two terms) and not in terms of credits.

GRADING

a) Grading is according to the same system shown above for undergraduates.
b) In S.T.M. and M.A. courses the pass mark is 65% and in Ph.D. courses 75%. Doctoral students are expected to achieve this level in all courses.
c) First class standing in the Doctoral and Master's programs is 80% and over.

COURSE NUMBERING

The initial three numbers of a course indicate the faculty or department, e.g., 260 — Religious Studies, 397 — Islamic Studies.

The initial figure of the second set of numbers indicates the level of the course, e.g., 260-300 is more advanced than 260-200.

The letter accompanying a course number indicates the term in which it is given: A — first term, B — second term, D — course extends over both terms.

● beside the course number indicates that it is not given in the current session.

T.B.A. — indicates instructor's name is to be announced later.

Summer Session and Continuing Education

Summer Session (May-August) offers a wide range of undergraduate credit courses and a

limited number of graduate courses. Please consult the *Summer Session Announcement* for specific information on courses and dates.

There are limitations on the number of credits that may be taken in Summer Session and students should consult their advisers about this before registering.

The Centre for Continuing Education offers credit and non-credit courses in the evenings of the Fall and Winter terms. Please consult the *Centre for Continuing Education Announcement* for further details.

Student Services and Residential Facilities

Information concerning the various student services available and residence facilities is contained in the *General Announcement* which may be obtained from the Registrar's Office.

3 SCHOLARSHIPS, FELLOWSHIPS AND AWARDS

Full information concerning undergraduate and graduate awards is contained in the *Undergraduate Scholarships and Awards Announcement* and the *Postgraduate Awards, Fellowships and Bursaries Announcement* which may be obtained from the Registrar's Office.

4 UNDERGRADUATE PROGRAMS AND COURSES OF INSTRUCTION

The B.A. Honours and Major Programs in Religious Studies

These programs are administered by the Faculty of Arts and the general rules, regulations and requirements of that Faculty apply to them.

Information about admission and application forms may be obtained from the Admissions Office, F. Cyril James Bldg., Rm. 237, McGill University, 845 Sherbrooke Street West, Montreal, P.Q. Canada H3A 2T5.

For general information on courses and Honours and Major programs, consult the Adviser, Professor Young, Room 107, phone 392-4835. For specific course information consult the instructor.

Honours and Major students must consult the Adviser prior to registration each year.

HONOURS IN RELIGIOUS STUDIES

The Honours program in Religious Studies offers a degree of analysis and concentration beyond that of the Major program, through course work, intensive research and discussion with peer groups.

There are no prerequisites for entry to the program which will normally be at the beginning of the first year. Students must maintain a CGPA of 2.8, or 3.5 for First Class Honours, in addition to obtaining a B or higher in each program course.

The program consists of a minimum of 66 credits chosen as follows:

1) At least 48 credits from the Religious Studies courses described below. (Honours students may also choose from the B.Th. program in this announcement, and certain courses in the Jewish Studies Program — see *Core Courses in Other Departments,* below — after consultation with the Adviser. In special cases, permission may be given for admission to graduate seminars in the Faculty of Religious Studies.) Among these the following are required: 201A and 202B, 252A and 253B in U1; 355A in U2; 500B in U3; one course (6 credits) in a religious tradition other than the student's own in U2 or U3.

2) The remaining 18 credits may be from those indicated in 1) above or from approved Related Courses (see below).

JOINT HONOURS PROGRAMS

Please consult the Adviser for information about possible joint Honours programs.

MAJOR IN RELIGIOUS STUDIES

A Major in Religious Studies consists of 54 credits chosen as follows:

1) At least 36 credits from the Religious Studies courses described below. (Major Students may also choose their courses from the B.Th. program in this announcement, and certain courses in the Jewish Studies Program — see *Core Courses in Other Departments, below — after consultation with the Adviser.*) Students must choose at least one full course *(6 credits)* in a tradition other than their own.

2) The remaining 18 credits may be from those indicated in 1) above or from approved Related Courses (see below).

INTERDISCIPLINARY MAJOR programs may be arranged in consultation with the Adviser. Joint programs are in operation between Religious Studies and Classics, Philosophy and Art History.

Course Descriptions

***Pending full authorization.**

260-201A RELIGIONS OF THE ANCIENT NEAR EAST. (3 credits) Deities, death and rebirth in the religions of ancient Egypt, Mesopotamia and Canaan; myth and ritual with reference to the geographical, historical and cultural conditions which influenced religious expression.
D.R. Runnalls

260-202B THE RELIGION OF ANCIENT ISRAEL. (3 credits) An examination of the religion of Ancient Israel by a study of selected texts (narratives, laws, prophetic sayings, wisdom traditions, and psalms) from the Hebrew Scriptures/Old Testament in translation.
R.C. Culley

260-252A HINDUISM AND BUDDHISM. (3 credits) The interaction of Hinduism and Buddhism in India with special reference to the law of karma, caste, women, ritual, death, yoga, and liberation. Determination of interpretative principles for understanding the religious psychology of Hindus and Buddhists.
K. Young

260-253B THE RELIGIONS OF THE FAR EAST AND ISLAM. (3 credits) Harmony with nature, society, and cosmos to be explored through the religions of the Far East (Confucianism, Taoism, Buddhism and Shinto). Islam as submission to the will of God to be explored through the Muslim views of God, scripture, prophecy, law, theology, community, art and mysticism.
K. Young

260-257D INTRODUCTORY SANSKRIT. (6 credits) To develop basic language and reading skills.
T. Rahula

● **260-258D INTRODUCTORY PALI.** (6 credits; prerequisite: 260-257D or equivalent). To develop basic language and reading skills.
T. Rahula

260-280D ELEMENTARY NEW TESTAMENT GREEK. (6 credits) See B.Th. program listing.
F. Wisse

260-300B POST-BIBLICAL JEWISH TRADITION. (3 credits) The origins of Rabbinic Judaism: a survey of Jewish history and thought from Ezra to the Tannaim; oral tradition, Torah interpretation in the Mishnah and Midrashim.
D.R. Runnalls

● **260-301B JEWISH SECTARIAN THOUGHT (200 B.C.E. — 200 C.E.).** (3 credits; prerequisite: 260-300B or the consent of the lecturer). The religion and literature of sectarian groupings: apocalyptic thought; wisdom; Dead Sea Scrolls; Josephus.
D.R. Runnalls

260-304A PROPHECY IN ANCIENT ISRAEL. (3 credits) A study of prophecy in Ancient Israel as an example of the phenomenon of the intermediary (prophet, shaman, diviner, medium) in religious traditions. Selections from the prophetic writings of the Hebrew Scriptures/Old Testament will be read in translation (Amos, Hosea, Isaiah, Jeremiah, Ezekiel).
R.C. Culley

260-310D THE NEW TESTAMENT: ITS MAKING AND MEANING. (6 credits) An introduction to the critical methodology and main issues of New Testament studies. The emphasis will be on developing exegetical skills.
N.T. Wright

260-320D A HISTORY OF CHRISTIAN THOUGHT. (6 credits) A survey of the development of Christian thought from the post-apostolic period to the present day, in relation to the concurrent cultural and philosophical movements. The work of prominent Christian thinkers, ancient, medieval and modern, will receive special attention.
D.J. Hall

260-322A THE ANCIENT CATHOLIC CHURCH (TO A.D. 325). (3 credits) This course covers the growth of the Christian tradition in the period from the reign of Nero to the Council of Nicaea A.D. 325. Special attention is paid to the setting within Roman Imperial History. Lectures are given on the outstanding teachers of the Christian faith.
G. Johnston

260-323B THE ANCIENT CATHOLIC CHURCH (A.D. 325-604). (3 credits) This course is a continuation of 322A and covers the period from A.D. 325 to 604. Special attention is paid to the development of Christian theology, the Eastern Byzantine Church and the significance of the Papacy and the faith.
Staff

260-325A ALTERNATE LIFESTYLES IN THE CHRISTIAN TRADITION. (3 credits) The course focuses on groups and individuals within Christendom who chose to develop an ethos or

lifestyle which differed significantly from that of the majority of people at any given time, e.g. hermits, Albigenses, Brothers of the Common Life, Amish, Shakers.
E.J. Furcha.

260-335B THEOLOGICAL ANTHROPOLOGY. (3 credits) Is the process of becoming a religious person within the Christian tradition part of the same process as becoming more fully human? Several world-views operative in contemporary North America will be studied along with their theological implications. (Given in alternate years).
W. Lawlor

- **260-336B CONTEMPORARY THEOLOGICAL ISSUES.** (3 credits) Theological method —scriptural, doctrinal, correlation — is utilized to reflect on such problems as liberation and development (problems studied may differ from year to year). This study emphasizes how theological perspectives differ from and complement positions assumed by other disciplines. (Given in alternate years).
Staff

260-338A WOMEN AND THE CHRISTIAN TRADITION. (3 credits) An historical and critical examination of the factors that have contributed to the image of women in the Christian tradition, emphasizing archetypal figures such as Eve, Mary, virgin, wife and witch.
Staff

260-339B HINDU AND BUDDHIST IMAGES OF THE FEMININE. (3 credits) An analysis of the richness (and ambivalence) of feminine imagery from three perspectives: mythic (goddesses, epic figures); philosophic (material nature, the power to create, wisdom, compassion); human (mothers, wives, daughters, temptresses, nuns). (Given in alternate years).
K. Young

260-340B RELIGION AND THE SCIENCES. (3 credits) Philosophies of science and of religion have created a more positive dialogue on questions of method, symbolism and rationality. We examine key issues (e.g., creation and evolution; objectivity and involvement; determinism and freedom) raised by natural and social sciences, and various possible solutions. (Given in alternate years).
J.C. McLelland

- **260-345B RELIGION AND THE ARTS.** (3 credits) Myths and symbols approached through literary criticism to examine art forms as self-images, social critique and forms of ultimate concern: concentration on Western culture. (Given in alterate years).
J.C. McLelland

- **260-346B MYTH AND SYMBOL IN HINDU AND BUDDHIST ART.** (3 credits) Explores Hindu concepts of deity and the cosmos through slides of Vishnu, Shiva, the Goddess, and temple architecture. Analyzes the Buddha's life, samsara as the human predicament and nirvana as the human goal through Asian art. (Given in alternate years).
K. Young

- **260-347B TOPICS IN RELIGION AND THE ARTS.** (3 credits) Selected themes in the interaction between religion and the arts, to vary from year to year.

260-351A PHENOMENOLOGY OF RELIGION. (3 credits) A cross cultural comparison of a religious theme (to vary each year). For 1982-1983: Theories and Techniques of Meditation. Based on analysis of scriptural texts and commentaries, Hindu, Buddhist, Jewish, Christian, and Muslim views on meditation are explored to provide a basis for understanding phenomenologically different types of traditional meditation and situating them in the current spectrum of North American religious life.
Staff

260-352B THE BIRTH OF HINDU PHILOSOPHY. (3 credits; prerequisite: 260-252A or permission of the instructor). The development of Hindu religion and philosophy is traced from Vedic ritualism through Upanisadic speculation into the six classical philosophical systems *(darsanas).* Attention is given to their implications for the Hindu religious world view.
R.W. Stevenson

- **260-353A GANDHI, HIS LIFE AND THOUGHT.** (3 credits; prerequisite: 260-252A or permission of the instructor). The sources and nature of his religious thought and its development. Special attention will be given to such Gandhian concepts and techniques as non-violence, satyagraha, fasting and non-attached action. (Given in alternate years).
R.W. Stevenson

- **260-354A RELIGION AND SOCIETY IN CLASSICAL INDIA.** (3 credits; prerequisite: 260-252A or permission of the instructor). The rise and development of Hindu theism, social systems and values, from the Epic to the early Mediaeval period, are examined through a study of the Dharmasastra, Epic and Puranic literature (in translation).
R.W. Stevenson

260-355A THE STUDY OF RELIGION. (3 credits; not open to students who have taken 260-500D). The history of the study of religion will be reviewed with concentration on major theories concerning the nature and origin of religion. Several methods for the study of

religion will be critically examined to develop students' awareness of the implications of methodology.
Staff

260-357D INTERMEDIATE SANSKRIT. (6 credits; prerequisite: 260-257D or permission of the instructor). Advancement of grammar and vocabulary with readings in epic and similar texts.
T. Rahula

260—358D INTERMEDIATE PALI. (6 credits; prerequisite: 260-258D or permission of instructor). Advancement of grammar and vocabulary with readings in selected texts.
T. Rahula.

260-361A RELIGIOUS BEHAVIOUR. (3 credits) See B.Th. program listing.
M. Peaston

260-370A THE HUMAN CONDITION. (3 credits) A consideration of the values of contemporary humanity in relation to our natural environment, our social situation and our own "nature", and the connection between those values and religious conviction or the human quest for ultimate meaning.
J.A. Boorman

260-381A ADVANCED NEW TESTAMENT GREEK. (3 credits) See B.Th. program listing.
N.T. Wright

260-382B EXEGESIS OF THE GREEK NEW TESTAMENT. (3 credits) See B.Th. program listing.
N.T. Wright

260-390D ELEMENTARY BIBLICAL HEBREW. (6 credits) See B.Th. program listing.
D.R. Runnalls

● **260-454B MODERN HINDU THOUGHT.** (3 credits; prerequisite: 260-352B or 354A or permission). A study of the developments in religious thought with special reference to such thinkers as Ram Mohan Roy, Dayananda Saraswati, Ramakrishna, Vivekananda, Gandhi, Tilak, Aurobindo, and Radhakrishnan. (Given in alternate years).
R.W. Stevenson

● **260-455D BUDDHISM.** (6 credits) The life and teachings of the Buddha, the development of Indian Buddhism with special reference to the Theravada and Mahayana traditions, the expansion of Buddhism outside India. (Given in alternate years).
T. Rahula

● **260-457D ADVANCED SANSKRIT.** (6 credits; prerequisite: 260-357D or permission of the instructor). Critical reading of selected Sanskrit texts.
T. Rahula

260-490D ADVANCED BIBLICAL HEBREW. (6 credits) See B.Th. program listing.
R.C. Culley

260-496A/B SPECIAL STUDIES.*(3 credits) Topics to be arranged.
Staff

260-497A/B RESEARCH SEMINAR. *(3 credits)
Staff

260-500B HONOURS METHODOLOGY. (3 credits; not open to students who have taken 260-500D; prerequisite: 260-355A, and advanced undergraduate study in a major religious tradition at the 400 level). Research in an area of specialization and practical application of method in the preparation of a major paper.
Staff

● **397-504D THE ISLAMIC TRADITION.** (6 credits) The Islamic Community and the elements of its tradition — scripture, prophet, doctrine, practices, institutions — considered historically and in terms of religious meaning. (Given in alternate years).

260-551A INDIAN LOGIC I. (3 credits; prerequisite: 260-257D or equivalent). The logic and epistemology of Nyaya-Vaisesika and Mimamsa using as basic texts Annambhatta's *Tarkasamgraha* and Laugaksibhaskara's *Arthasamgraha.*
K. Young

* **260-552B ADVAITA VEDANTA.** (3 credits; prerequisite: 260-551A). The relation of Nyaya-Vaisesika and Mimamsa to Kevaladvaita with concentration on Samkara's *Brahmasutrabhasya*, Padas 1 and 2.
K. Young

*● **260-553A RELIGIONS OF SOUTH INDIAN I.** (3 credits) Issues discussed include definitions of Tamil identity, the relation of *akam* to *bhakti* poetry, the theology of the Alvars and Nayanmars, inter-religious and sectarian competition, the motif of pilgrimage, questions of caste and women.
K. Young

*● **260-554B RELIGIONS OF SOUTH INDIA II.** (3 credits; prerequisite: 260-553A). Includes analysis of the following: *sampradaya; ubhayavedanta;* comparison of Visistadvaita and Saiva Siddhanta with reference to selected themes that illustrate the Tamil contribution; the relationship of theology to the sociology of knowledge in Tamilnad.
K, Young

*** Students wishing to take this course must have the permission of the Religious Studies Adviser.**

Core Courses in Other Departments

In consultation with the Adviser, students may choose certain courses in other departments (e.g., those listed below) for credit towards the Core requirements of their Major or Honours program. They must, however, fulfil any requirements laid down by the Department concerned.

INSTITUTE OF ISLAMIC STUDIES

See Section 6, below for additional information on these courses.

397-521D INTRODUCTORY ARABIC.

397-522D LOWER INTERMEDIATE ARABIC.

397-623D HIGHER INTERMEDIATE ARABIC.

397-624D ADVANCED ARABIC.

JEWISH STUDIES PROGRAM.

(Please consult Jewish Studies, 392-5969, as to which of these courses are offered this year).

135-211A JEWISH STUDIES 1: THE BIBLICAL PERIOD.

135-212B JEWISH STUDIES II: THE TALMUDIC PERIOD.

135-213A JEWISH STUDIES III: THE MEDIEVAL PERIOD.

135-214B JEWISH STUDIES IV: THE MODERN PERIOD.

135-310A BELIEVERS, HERETICS AND CRITICS.

135-316A SOCIAL AND ETHICAL ISSUES IN JEWISH LAW.

135-317B SOCIAL AND ETHICAL ISSUES IN JEWISH LAW.

135-319B JUDAISM AND THE OCCULT.

135-324B BIBLICAL INTERPRETATION IN ANTIQUITY.

135-345A INTRODUCTION TO RABBINIC LITERATURE.

135-358A TOPICS IN JEWISH PHILOSOPHY.

135-359B TOPICS IN JEWISH PHILOSOPHY.

Additional courses in this program may be available to students sufficiently qualified in Hebrew language.

Related Courses

Students have the option of completing up to 18 credits towards their Honours or Major requirements in related courses, i.e., courses having a significant religion content, given in other faculties, departments, etc. They may be chosen, in consultation with the program Adviser, from the Faculty of Education, the Faculty of Music, and the following Departments and Programs in the Faculty of Arts:

Anthropology
Art History
Classics
East Asian Studies
English
French Canada Studies
German
History
Italian
Jewish Studies
Philosophy
Political Science
Sociology

Note that only some of the courses offered in the above Faculties and Departments qualify as related courses.

Courses from other Faculties or Departments may also be considered appropriate by the Adviser, depending upon their content, and the student's interests and qualifications.

Students taking related courses must fulfil any requirements laid down by the Faculty or Department concerned (permission from the Dean or instructor, prerequisites, grades, etc.)

Languages

Students taking introductory language courses as part of a Religious Studies program are strongly advised to take the advanced course also.

Instruction in the languages of some other religious traditions (such as Ancient Egyptian, Tibetan) may be available in any given year. Ask the Adviser for further information.

REGULATIONS FOR THE B.TH. DEGREE

THE PROGRAM

The course extends over three academic sessions for those admitted with a Diploma of Collegial Studies and two academic sessions for those admitted with a Bachelor's degree.

The normal load consists of five half courses (15 credits) each term. Candidates for ministry from the three Theological Colleges associated with the Faculty must select their courses in consultation with their denominational advisers and with the Chairman of the B.Th. Committee.

Those seeking the degree who are not proceeding towards ministry or are not sponsored by one of the three denominational colleges associated with this Faculty will clear their course selections with the Chairman of the B.Th. Committee.

In all cases this consultation will take place *before* registration.

B.Th. Honours

Students seeking the degree with Honours must apply to the B.Th. Committee for permission at the end of B.Th. 2. They will be required to complete 260-501D in U3 with a grade of B or better, to have completed at least 60 credits at McGill, and to have achieved a CGPA of at least 3.20.

Cours en Français
Dépendant du nombre d'inscriptions, certains cours sont offerts en français au niveau du B.Th. dans les matières suivantes: Théologie systématique, Philosophie de la Religion, Histoire de l'Église, Grec.

Required Courses

Required courses for candidates for ministry (unless otherwise authorized by their denominational advisers and the B.Th. Committee) are as follows:
Year 1: 260-252A, 253B.
Year 2: 260-303D, 310D, 324D, 333B, 341A, 379B.
Year 3: 260-434A, 453B*, 470A.
* Required for students who have not taken 260-252A/253B or equivalent.

Students proceeding towards the M. Div. degree are required, in addition, to participate in integrative seminars and workshops and should consult with their adviser.

By permission of the B.Th. Committee and the instructors concerned, students may substitute elective courses for any of the required courses if they have already taken them or similar courses for credit.

Elective Courses

The remaining courses needed each term to make up the normal load are electives. They may be chosen from among the courses described below or from certain other courses in the Arts curriculum or other departments of the university, e.g., courses in the Religion Honours and Major programs and their related courses, listed above.

By permission of the Dean, students may also enrol for electives at any university in the Province of Québec. See Academic Transfer Agreement in the *General Announcement* for details.

The University expects candidates for ministry to give full time study to their academic courses for the B.Th. Professional and vocational courses (e.g., leading to ordination) are expected to follow the completion of the B.Th degree.

Returning students are required to pre-register prior to departing the university at the end of the academic year.

Course Descriptions

260-220A REFORMERS AND REACTIONARIES. (3 credits) An examination of issues and persons in Europe and the British Isles that contributed to ecclesiastical and social change during the sixteenth and early seventeenth centuries.
E.J. Furcha

260-252A HINDUISM AND BUDDHISM. (3 credits) See B.A. program listing.
K. Young

260-253B THE RELIGIONS OF THE FAR EAST AND ISLAM. (3 credits) See B.A. program listing.
K. Young

260-280D ELEMENTARY NEW TESTAMENT GREEK. (6 credits) An introduction to the grammar and syntax of New Testament Greek.
F. Wisse

260-303D OLD TESTAMENT STUDIES. (6 credits) Reading and interpreting representative selections from the Old Testament in English translation. Some attention to approaches developed by historical-critical scholarship and to background information such as history, geography, and archaeology, mainly through modules (one quarter of course work).
A. van Seters

260-310D THE NEW TESTAMENT: ITS MAKING AND MEANING. (6 credits) An introduction to the critical methodology and main issues of New Testament studies. The emphasis will be on developing exegetical skills.
N.T. Wright

260-321A HISTORY OF CHRISTIAN LITURGY. (3 credits) A survey of the history of Christian Worship, with special reference to the Classical, Reformation, and Modern Periods.
J.I. McNab

260-324D THE CHURCH IN HISTORY. (6 credits) A survey of the main developments in the history of Christianity from the end of the apostolic age to the present. Use will be made of selected readings from primary and secondary sources.
E.J. Furcha

260-330B REFORMED THEOLOGY. (3 credits) Selected topics illustrating the Reformers' theological agenda, with special reference to Luther, Zwingli and Calvin.
W. Klempa

• **260-331A CONTEMPORARY CATHOLIC THEOLOGY.** (3 credits) An introduction to contemporary Christian thought from within a Catholic perspective. This study will include an examination of recent reinterpretations of the traditional understanding of God and person in relation to the world of today. (Given in alternate years).
Staff

260-333B PRINCIPLES OF CHRISTIAN THEOLOGY I. (3 credits) An introduction to the central categories of Christian theology. The course will include discussion of the nature of theology, and of all the primary areas of doctrine (Theology, Christology, Pneumatology, Anthropology, Ecclesiology, Eschatology). Throughout, a conscious attempt will be made to reflect on the Christian faith in the light of the contemporary apologetic situation.
D.J. Hall

260-341A INTRODUCTION TO PHILOSOPHY OF RELIGION. (3 credits) Introduction to the subject. Faith and reason, theistic arguments, values and destiny, the problem of evil, religious language.
J.C. McLelland

• **260-343A/B TOPICS IN PHILOSOPHY OF RELIGION.** (3 credits) Subjects will vary from year to year.
Staff

260-361A RELIGIOUS BEHAVIOUR. (3 credits) A study of the psychological origins of religion, of some aspects of the religious life (e.g., prayer, conversion, mystical experiences), and of some contemporary religious phenomena (e.g., marginal religious groups, the charismatic movement, glossolalia). The views of Freud and Jung are also considered. (Given in alternate years).
M. Peaston

• **260-373A/B TOPICS IN CHRISTIAN ETHICS.** (3 credits) Subjects will vary from year to year.
Staff

• **260-379B INTRODUCTION TO THEOLOGICAL EDUCATION.** (3 credits) An interdisciplinary course providing a brief introduction to the main theological disciplines, and presenting the issue and problems surrounding the relationship of theology to other areas of scholarship; the whole to be viewed also in terms of relevance to the contemporary church and ministry.
Staff

260-381A ADVANCED NEW TESTAMENT GREEK. (3 credits; prerequisite 260-280D or equivalent). A review of grammar and syntax with an emphasis on rapid reading of sections chosen from different parts of the New Testament.
N.T. Wright

260-382B EXEGESIS OF THE GREEK NEW TESTAMENT. (3 credits; prerequisite 260-381A or equivalent). An intensive seminar in exegesis on the basis of representative passages chosen from different parts of the New Testament.
N.T. Wright

260-390D ELEMENTARY BIBLICAL HEBREW. (6 credits) An introduction to the grammar and syntax of biblical Hebrew. Emphasis is placed on both the oral and the written language.
D.R. Runnalls

260-404B POST-EXILIC BIBLICAL LITERATURE. (3 credits) A study of a major book of the post-exilic biblical literature within the context of the religious development of the period 520-160 B.C.
D.R. Runnalls

• **260-405A THE THEOLOGY OF THE OLD TESTAMENT.** (3 credits) A study of Old Testament theology based on selected writings.
R.C. Culley

• **260-407A THE WRITINGS.** (3 credits) A study of a major book from the Writings of the Old Testament such as Psalms, Job, or Proverbs in English translation.
R.C. Culley

260-408A THE PROPHETS. (3 credits) A study of significant texts selected from the prophetic tradition in the Old Testament. 1982-83: Isaiah 40-55.
R.C. Culley

• **260-410B MAJOR MOTIFS IN NEW TESTAMENT THEOLOGY.** (3 credits; prerequisite 260-310D or equivalent).
N.T. Wright

260-411A NEW TESTAMENT INTERPRETATION. (3 credits; prerequisite 260-310D or equivalent). A study of selected texts on the basis of the English Bible.
F. Wisse

260-412B MORAL TEACHING IN THE NEW TESTAMENT. (3 credits) A study of ethical issues and moral theology as reflected in the New Testament Writings.
F. Wisse

260-420B CANADIAN CHURCH HISTORY. (3 credits) A survey of the major Christian traditions in Canada from the settlement of New France to the present. Lectures and seminars with use, where possible, of primary source materials.
E.J. Furcha

• **260-431B CHURCH, MINISTRY and SACRAMENTS.** (3 credits) Studies of different ecclesiologies; exploration of traditional and more contemporary understandings of

ministry; and a discussion of the sacraments from an ecumenical perspective.
W. Klempa

260-434A PRINCIPLES OF CHRISTIAN THEOLOGY II. (3 credits) This course is a continuation of 260-333B.
D.J. Hall

260-435B A THEOLOGY OF THE BODY. (3 credits) An introduction to central categories of Christian anthropology. The course will include discussion of the Greek and Semitic backgrounds, and their influence upon the New Testament's understanding of personal and corporate personality. The concept of "incorporation" into the "body of Christ" will also be studied.
P. Goldberger

- **260-436A HISTORICAL REALITY, CHRISTIAN AND MARXIST PERSPECTIVES.** (3 credits) The appearance of Marxism has forced Christian theologians to articulate more explicitly their view of history and to take with greater seriousness the significance of the historical process. This course will focus on the Christian/Marxist dialogue in its treatment of historical reality and its anthropological dimension.
P. Goldberger

- **260-441B MODERN PHILOSOPHY OF RELIGION.** (3 credits) Advanced course; 19th and 20th century examples of "Philosophical options and theological choices", e.g., positivism, idealism, existentialism, process thought.
J.C. McLelland

260-453B INTRODUCTION TO WORLD RELIGIONS. (3 credits) A study of elements of the major religious traditions and a consideration of some problems of the Christian approach to other traditions.
R.W. Stevenson

- **260-461A HUMAN DEVELOPMENT AND GENDER IDENTITY.** (3 credits) A study of development tasks from birth onwards with special reference to the major stages (e.g., childhood, adolescence, age) of the life cycle. The achievement of sexual identity is an important consideration. (Given in alternate years).
M. Peaston

260-470A THEOLOGICAL ETHICS. (3 credits) A study of the biblical and theological foundations of Christian ethics, and the nature, application and relevance of the Christian norm.
J.A. Boorman

260-471B CHRISTIAN SOCIAL ETHICS. (3 credits) The basis of Christian social responsibility, traditional patterns of association between Church and State, and forms of Christian involvement in political and social action. Attention is focused on strategies for dealing with selected contemporary social issues.
J.A. Boorman

260-490D ADVANCED BIBLICAL HEBREW. (6 credits) Rapid reading of prose selections. Class hours devoted to discussion of grammar based on readings from biblical Hebrew.
R.C. Culley

260-491A HEBREW TEXTS. (3 credits) Translation and exegesis of selected texts.
R.C. Culley

260-492B HEBREW TEXTS. (3 credits) Translation and exegesis of selected texts.
R.C. Culley

260-498A/B SPECIAL STUDIES.* (3 credits)
Staff

260-499A/B RESEARCH SEMINAR.* (3 credits)
Staff

260-501D HONOURS SEMINAR. (6 credits; open to students in the final year of B.Th. Honours). Provides opportunity for advanced work and the development of research interests and methods in the student's area of Honours specialization.
Staff

*** Students wishing to take this course must have the permission of the chairman of the B.Th. Committee.**

5 GRADUATE STUDIES

Advanced Degree Requirements

Candidates for advanced degrees should note that they are expected to give full time to their research and courses, unless specially exempted.

Language Examinations are usually offered each year early in January and in mid-April. Candidates should advise the Dean's office well in advance of their intention to write.

Theses. The regulations concerning format, dates of submission, and other technical matters may be consulted in the office of the Dean of Religious Studies or in the Thesis Office, Graduate Studies, Dawson Hall.

Regulations for the M.A. in Religious Studies

RESIDENCE

The normal residence requirement is three terms of full-time resident study. Students may apply to do the third term during the summer of

their first year. See "Thesis Submission" below. The degree may, by permission, be taken on a part-time basis.

THE PROGRAM

Candidates are required to complete satisfactorily six half-courses and write a thesis embodying the results of their research. A reading knowledge of French or another modern language is also required.

AREAS OF STUDY

Research may be undertaken in the following areas:

(1) *Biblical* (including Old Testament and New Testament)
(2) *Christian Theology* (including Church History and Christian Theology,
(3) *Religion and Culture* (including Religion and the Arts, Theological Ethics, Philosophy of Religion and Psychology of Religion).
(4) *Comparative Study* (including Hindu, Buddhist, Muslim and other traditions).

All students must consult with the adviser in the area of study chosen *before* registration to review selection of courses.

Candidates who have studied only one major religious tradition before entering the M.A. program must take at least two half-courses in Comparative Study or in the study of a second major faith. Related courses in other McGill departments are also available, e.g., in Anthropology, Art History, East Asian Studies, Islamic Studies, Music and Sociology. Other resources exist in the several universities of Montreal. Undergraduate courses in religion may, with permission of the instructor and an expanded work-load, be taken for graduate credit.

LANGUAGE EXAMINATIONS

Entrants to M.A. 1 are expected to pass the modern language requirement by the end of their second term. They are required to demonstrate a reading proficiency in a modern language, normally French or German, but students may apply to offer another modern language if it is more relevant to their research. Exemption from this requirement is granted to those who have a degree pass, or the equivalent, in the language.

NOTE: A thesis in Old Testament requires competence in Hebrew; similarly, one in New Testament requires competence in Greek.

THESIS SUBMISSION

As indicated above (see "Residence"), the dissertation may be submitted at the end of the first academic session provided all course work and language requirements have been successfully completed. Candidates must complete the degree within four years of initial registration.

Regulations for the S.T.M.

RESIDENCE

The normal requirement is *two years* (of two terms each) of full-time study, but the degree may, by permission, be taken on a part-time basis.

THE PROGRAM

Candidates are expected to be enrolled for full-time study, if possible, and are required to complete satisfactorily at least 12 half-courses and pass 4 comprehensive examinations (i.e., do four Area Studies courses, see Special Requirements) within two years. Normally, six half-courses and two Area Studies courses shall be taken in each academic session, but by permission candidates may take summer session courses for credit. Undergraduate courses in religion may, with permission of the instructor and an expanded work load, be taken for graduate credit. Up to five half-courses may be taken in another approved institution, provided their purpose and standard correspond to those of this S.T.M. program. A reading knowledge of French or German, or another modern language, is also required.

AREAS OF STUDY

Courses are offered by the department in the four areas listed in the M.A. regulations.

Related courses are also available in other departments.

SPECIAL REQUIREMENTS

Ministerial candidates are to choose their courses in consultation with the Principal of the Theological College to which they belong.

As part of the program candidates shall write *four* comprehensives (i.e., four Area Studies courses), two in S.T.M. 1 and two in S.T.M. 2, chosen from the following Areas: (1) Biblical Theology (520A), (2) Church History (530B), (3) Christian Theology (531B), (4) Philosophy of Religion (540A), (5) Theological Ethics (541B), (6) Pastoral Psychology (542A), (7) Comparative Religion (550B).

Those who are admitted into S.T.M. 2 shall elect courses in consultation with the chairman of the Graduate Committee of the department.

LANGUAGE EXAMINATION

Entrants to S.T.M. 1 are expected to pass the modern language requirements by the end of their second term; but those who are admitted into S.T.M. 2 must do so by the end of their first term. They are required to demonstrate a reading proficiency in a modern language, normally French or German, but students may apply to offer another modern language if it is more relevant to their research. Exemption is granted to those who have a degree pass, or the equivalent, in the language.

Regulations for the Ph.D. In Religious Studies

RESIDENCE

Normally, a candidate admitted to Ph.D. 1 must reside for three consecutive sessions of full-time study and research. Part-time study may be permitted in special cases. Candidates admitted to Ph.D. 2 must normally reside for two consecutive sessions. One session, but in no case the last required session, may be spent at another institution with the approval of the Dean and the Faculty of Graduate Studies and Research.

Candidates admitted to Ph.D. 1 take six half-courses in that year and four half-courses the next; those admitted to Ph.D. 2, on the basis of a master's degree and adequate preparation, usually take four half-courses.

SUPERVISION

The instructors in each area (Biblical, Theological, Religion and Culture, and Comparative) constitute an Area Committee and this Committee shall act as a supervising committee for each student. The chairman of each area, or an instructor designated by the chairman, shall act as an adviser for each candidate in that area until a thesis supervisor is selected. Candidates must meet with their advisers or supervisors prior to registration to discuss their programs and to obtain advice concerning the requirements they are obliged to meet (e.g., courses, modern languages, ancient languages, field and general examinations). The director shall be responsible for arranging meetings of the supervising committee with the candidate as required. A thesis project must be approved by the Graduate Committee of the Faculty not later than February 1 of the Ph.D. 2 year.

LANGUAGE REQUIREMENTS

French and German are normally required of all candidates, and formal admission into the work of Ph.D. 2 will not be granted until at least one of these languages has been passed (or exemption granted on the basis of a degree pass or the equivalent). Similarly, formal admission into Ph.D. 3 requires a pass in the second modern language. (It is strongly recommended that one or both of these languages be included in the bachelor's or master's work preceding doctoral study.

If necessary, candidates may also have to pass examinations in Hebrew, Greek, Sanskrit or other ancient tongues, and consequently a *qualifying year may be advised.*

COMPREHENSIVE EXAMINATIONS

These examinations are designed to ensure that candidates are adequately prepared to undertake the research required for a doctoral thesis. They are meant to test students' competence in: 1) their chosen field, 2) two cognate areas. The latter are areas closely related to the chosen field and are to be determined by candidates in consultation with their supervising committees. Comprehensives may take the form of a written examination, a major essay, a project or an oral examination, or a combination of these.

DOCTORAL COLLOQUIUM

As one of their requirements all Ph.D. 1 and Ph.D. 2 students shall attend the graduate colloquium, where they can share ideas and criticisms with one another and their professors.

THESIS SUBMISSION

The thesis may be submitted as early as the second term of the second session of residence by candidates admitted with a master's degree. It must be submitted within five years after all residence requirements have been completed, unless special permission has been granted for an extension. A thesis which has been judged unsatisfactory by one of the examiners is normally not acceptable and such a judgment precludes an oral defence. But any thesis judged to be unsatisfactory may be resubmitted once, one year after first submission, if this is approved by the Executive Committee of the Faculty of Graduate Studies and Research.

Theses are examined by External and Internal Examiners. If their reports warrant it, the candidate shall conduct an oral defence of the thesis before a committee of six appointed by the Dean of Graduate Studies on the recommendation of the department. Its chairman is the Dean or Pro-Dean, and one member must represent a department of the University other than Religious Studies.

The final grade awarded to a successful Ph.D. candidate depends not only on the quali-

ty of the dissertation but on course work, examinations, research and testing ability, and also the oral defence.

GRADUATE COURSES

All are half-courses unless otherwise noted: A denotes Fall term, B Winter term, D a full course given in two terms. 500 level courses are designed for U3 and Master's students; 600 level courses may be taken by Master's and Doctoral candidates; 700 level courses are for Doctoral students only. Doctoral students are expected to take at least one 700 level seminar unless their area committee advises otherwise.

Course Descriptions

• beside the course number indicates that it is not given in the current session.

AREA A (BIBLICAL)

• **260-511B NEW TESTAMENT ETHICS.** A study of selected areas of New Testament ethical teaching and its relevance for the contemporary Church.
F. Wisse

260-520A AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Biblical Theology.
Staff

• **260-604B THE ROOTS OF EARLY JUDAISM.** An examination of Exilic and post-Exilic biblical materials (in English) that throw light on the cultural milieu and the historical experience out of which rabbinic Judaism arose.
D.R. Runnalls

• **260-605B INTERPRETERS OF THE RELIGION AND FAITH OF ANCIENT ISRAEL.** A study of how the biblical tradition has been analyzed and evaluated by outstanding scholars.
R.C. Culley

260-607B STUDIES IN THE BIBLICAL NARRATIVE TRADITIONS.
R.C. Culley

• **260-611B PAULINE THEOLOGY.** A study of the nature, background, origins, development and expression of the theological ideas in the Pauline literature and the connections between these ideas and other early Christian thought.
N.T. Wright

• **260-612A THE PASSION NARRATIVE IN THE FOUR GOSPELS.**
Staff

260-613A THE MINISTRY OF JESUS. A study of the Synoptic Presentation of the Aims, Teaching and Achievement of Jesus of Nazareth.
N.T. Wright

• **260-614A THE GOSPEL OF JOHN.**
Staff

• **260-617B GNOSTICISM.** A study of the Gnostic writings from Nag Hammadi in light of the question of the relationship of Gnosticism to Judaism, the New Testament, Church History, and the History of Religion.
F. Wisse

260-618B THE CHURCH IN THE NEW TESTAMENT. A study of the history, organization and worship of the Early Church on the basis of the New Testament Writings.
F. Wisse

AREA B (HISTORICAL AND THEOLOGICAL)

260-530B AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Church History.
Staff

260-531B AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Christian Theology.
Staff

260-623B THE ECUMENICAL MOVEMENT. A study of the modern approaches to Christian Reunion and Unity, world councils, and the outstanding leaders. The significance of Ecumenism in the history of the Church in modern times will be considered.
E.J. Furcha

260-625A CREEDS AND CONFESSIONS. An examination of selected credal and confessional statements from earliest extant confessional expressions to twentieth century creeds.
E.J. Furcha

• **260-626B SECULAR DIMENSIONS OF THE REFORMATION.** The theory and practice of major reformers regarding the total involvement of a Christian in human affairs. Ecclesiastical reforms are examined in their relation to the political and economic realities of the day.
E.J. Furcha

• **260-627A THE CHURCH IN CONFLICT** (From the French Revolution to World War II). Externally churches found themselves challenged by ideologies such as rationalism, liberalism, and Marxism; internally, churches had to rediscover ways of working together, despite theological differences, in promoting social change. Selected conflict situations will be examined through primary and secondary sources.
E.J. Furcha

• **260-628A ANGLICANS AND NONCONFORMISTS IN NINETEENTH CENTURY ENGLAND.** A study of the changing religious pattern of 19th century England in terms of the relation-

ship between the Established Church and Nonconformity as represented by the Free Churches and Roman Catholicism.
Staff

● **260-631B THE THEOLOGY OF THE CROSS.** The tradition Luther called THEOLOGIA CRUCIS as an appropriate theological response to the experience of the dominant culture of this continent.
D.J. Hall

● **260-632B THE THOUGHT OF REINHOLD NIEBUHR.** Theological and ethical thought of Niebuhr in the light of its cultural, social and political context.
D.J. Hall

● **260-633A THE THEOLOGY OF KARL BARTH.** Extensive reading and discussion of Part IV of the *Church Dogmatics* with special reference to Barth's Christology, doctrine of sin, ecclesiology and doctrine of Christian life.
W. Klempa

260-634A MOVEMENTS IN CONTEMPORARY THEOLOGY. Readings and discussion of representative works in the theology of hope, liberation theology and in the theology of the "new evangilicals".
W. Kiempa

● **260-635B CHRISTOLOGY IN THE EARLY CHURCH.** This seminar will examine doctrines of Christology during the first five Christian centuries. Student papers will consider the contributions of leading Greek and Latin Fathers, and also the Creeds of Ecumenical Councils. Some sessions will look at the implications of this history for contemporary Christological discussions.
G. Johnston

260-636B THEOLOGICAL METHOD. The seminar combines historical and systematic approaches to the questions associated with method in Christian theology. Particular attention will be given to the concerns of the apologetic and kerygmatic traditions and to contemporary discussions regarding contextuality in theological reflection.
D.J. Hall

● **260-730A SEMINAR IN PATRISTIC THEOLOGY.**
Staff

● **260-731A/B SEMINAR IN MEDIEVAL THEOLOGY**
Staff

● **260-732B SEMINAR IN REFORMATION THEOLOGY.** For doctoral students.
E.J. Furcha and J.C. McLelland

AREA C (RELIGION AND CULTURE)

260-540A AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Philosophy of Religion.
Staff

260-541B AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Theological Ethics.
Staff

260-542A AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Pastoral Psychology.
Staff

260-641A MODERN PHILOSOPHY OF RELIGION. A comparison of major types of philosophy of religion on the modern scene. Introductory lectures followed by student research on selected topics.
J.C. McLelland

● **260-643B PROBLEMS IN PHILOSOPHY OF RELIGION.**
J. C. McLelland

● **260-660B DIMENSIONS OF THE PERSON.** Studies in Erickson, Fromm, Horney and Jung.
M. Peaston

● **260-661B HUMAN NATURE IN THEOLOGICAL AND PSYCHOLOGICAL PERSPECTIVE.** Theology (Niebuhr) and psychotherapy (Freud, Sullivan, Maslow) are studied as interpreters of man, his freedom, conflicts and renewal.
M. Peaston

● **260-663A BEHAVIOUR CHANGE AND PERSONAL GROWTH.** A study in client-centered therapy; behaviour therapy; transactional analysis; and existential psychotherapy.
M. Peaston

● **260-667A IMAGES OF THE HUMAN.** A study of some authors (Camus, Freud, Maslow, Niebuhr, Tillich, Tournier) and topics (personhood, love, anxiety, loneliness, violence) which point towards an integration of psychology and religion.
M. Peaston

260-668A RELIGION AND THE PSYCHOLOGY OF JUNG. A study of the fundamentals of Analytical Psychology (e.g. dreams, archetypes, the Self, androgyny, evil, individuation) as seen in the context of Jung's life and work.
M. Peaston

● **260-670A REPRESENTATIVE SOCIAL THOUGHT IN THE TWENTIETH CENTURY.** Exposition and evaluation of the dominant expressions of social thought in the twentieth century.
J.A. Boorman

● **260-671B CHRISTIAN SOCIAL RESPONSIBILITY: SOME MAJOR ISSUES.** Major social and ethical problems of today will be identified and analyzed.
J.A. Boorman

● **260-672A CONTEMPORARY VALUE SYSTEMS IN CHRISTIAN PERSPECTIVE.**
J.A. Boorman

260-673B INTERPRETERS OF CHRISTIAN VALUES IN THE MODERN WORLD. A study of the major concerns and dominant trends among Christian interpreters of the human situation and human values today. An attempt to discover the distinctive answers given to the quest for meaning by contemporary thinkers.
J.A. Boorman

● **260-745A MEANING AND INTERPRETATION.** An interdisciplinary seminar on hermeneutical problems.
R.C. Culley and J.C. McLelland

AREA D (COMPARATIVE STUDY)

260-500B HONOURS METHODOLOGY. (Not open to students who have taken 260-500D; prerequisite: 260-355A, and advanced undergraduate study in a major religious tradition at the 400 level). Research in an area of specialization and practical application of method in the preparation of a major paper.
Staff

260-550B AREA STUDIES. For S.T.M. students. Tutorials and guided reading in the field of Comparative Religion.
Staff

* **260-551A INDIAN LOGIC I.** (3 credits; prerequisite: 260-257D or equivalent). The logic and epistemology of Nyaya-Vaisesika and Mimansa using as basic texts Annambhatta's *Tarkasamgraha* and Laugaksibihaskara's *Arthasamgraha.*
K. Young

260-552B ADVAITA VEDANTA. *(prerequisite: 260-551A).* The relation of Nyaya-Vaisesika and Mimamsa to Kevaladvaita with concentration on Samkara's *Brahmasutrabhasya, Padas 1 and 2.*
K. Young

*● **260-553A RELIGIONS OF SOUTH INDIAN I.** Issues discussed include definitions of Tamil identity, the relation of *akam* to *bhakti* poetry, the theology of the Alvars and Nayanmars, inter-religious and sectarian competition, the motif of pilgrimage, questions of caste and women.
K. Young

● **260-554B RELIGIONS OF SOUTH INDIA II.** *(prerequisite: 260-553A).* Includes analysis of the following: *sampradaya; ubhayavedanta;* comparison of Visistadvaita and Saiva Siddhanta with reference to selected themes that illustrate the Tamil contribution; the relationship of theology to the sociology of knowledge in Tamilnad.
K. Young

260-651A BUDDHIST LOGIC I. *(prerequisite:* two years of Sanskrit or Pali, or permission of the instructor). Vedic antecedents; Buddha's approach to epistemology and dialectics and their development in the *Kathavatthu* and *Milindapanha;* discussion of selected issues with references to Nagarjuna, Asanga, Vasubandhu, and Dignaga.
T. Rahula

*● **260-653D VISISTADVAITA VEDANTA.** (*prerequisite: 260-357D or* permission of the instructor). Translation and analysis of *Yatindramatadipika* with reference to Tamil Vaisnava *bhakti* and issues of logic, epistemology, and metaphysics in the *darsanas.*
K. Young

*● **260-654A/B THOUGHT OF RAMANUJA.** *(prerequisite: 260-357D,* or permission of the instructor). Translation and analysis of selections from Ramanuja's *Bhagavadgitabhasya* and *Brahamasutrabhasya.*
K. Young

* **260-655B BUDDHIST LOGIC II.** *(prerequisite: 260-651A).* Translation and analysis of Dharmakirtl's Nyayabindu with reference to the commentaries and contending schools.
T. Rahula

*● **260-750A/B COMPARISON OF HINDU AND BUDDHIST THOUGHT.** Advanced doctoral seminar. Themes to be determined each year.
Staff

● **260-751A/B TUTORIAL ON A SELECTED TOPIC.**
Staff

● **260-752D TUTORIAL ON A SELECTED TOPIC.**
Staff

SPECIAL STUDIES*

260-680A/680B/690D
OLD TESTAMENT

260-681A/681B/691D
NEW TESTAMENT

260-682A/682B/692D
HISTORY OF CHRISTIANITY

260-683A/683B/693D
CHRISTIAN THEOLOGY

260-684A/684B/694D
PHILOSOPHY OF RELIGION

260-685A/685B/695D
ETHICAL PROBLEMS

260-686A/686B/696D
RELIGIOUS PSYCHOLOGY

260-687A/687B/697D
COMPARATIVE RELIGION

*These are normally tutorial courses designed to meet the research needs of individual students at Master's or Doctor's level in the various disciplines. Students wishing to take them must obtain the permission of their advisers or supervisors (in the case of S.T.M. students, the chairman of the Faculty's Graduate Committee) as well as that of the instructor.

ELECTIVE COURSES IN OTHER DEPARTMENTS

The Institute of Islamic Studies (see below) offers a variety of courses in the History, Philosophy, Theology and languages of Islam that may be taken as part of the Graduate program in Comparative Study.

Scriptural languages such as Arabic, Greek, Hebrew, Pali, Sanskrit, may also be taken as part of this program. See the B.A. and B.Th. course listings in Section 4, above.

With the consent of the Dean of Religious Studies and the instructor concerned, graduate students may choose related courses in any other Department of the University, e.g., Art History, English, History, Jewish Studies, Philosophy. They may also take 40% of their courses in other Québec universities. See Academic Credit Transfer Agreement in the General Announcement.

6 INSTITUTE OF ISLAMIC STUDIES

Stephen Leacock Building
Room 817
855 Sherbrooke Street West
Montreal, PQ
Canada H3A 2T7

The Institute is concerned with the disciplined study of the Islamic tradition — involving faith, a society, and civilization — throughout the scope of its history and geographical spread. The program gives attention to the origins of the tradition, the changes through which it has passed, and the evolution it is currently experiencing. It also considers the contemporary dynamics of the Islamic world, as non-Muslims attempt to appreciate it with insight, as Muslims seek to relate their heritage to present conditions of modernity, and both to communicate.

The Islamic Studies Library is especially strong in its reference materials and periodical holdings for the Islamic regions. The collection, one of the largest in North America, contains approximately 75,000 volumes in the principal European languages as well as in Arabic, Persian, Turkish, Urdu and other Islamic languages.

NOTE: A brochure "General Information" supplements the information contained in this Announcement and should be obtained from the Institute.

DEGREES

Courses of study and research are offered leading to the degrees of M.A. and Ph.D. in Islamic Studies.

REQUIREMENTS

Admission

All successful applicants are initially admitted as M.A. candidates and should hold a B.A. degree with high standing in the Humanities or Social Sciences, preferably in Islamic or Middle Eastern Studies.

M.A. Degree

The requirements, in general, consist of a minimum of five full year courses (or equivalent), plus course 397-603A Research Materials for Islamic Studies unless specific exemption is granted, knowledge of Arabic at the second year level, and a thesis. (First year Arabic, Course No. 397-521D may not be counted among the five required courses, and at least one course must be a 700 level seminar offered by the Institute).

Ph.D. Degree

Students normally enter the Ph.D. program after completing the McGill M.A. degree with high standing, a minimum grade of 'good' on the thesis, and with the approval of the Institute.

The Ph.D. program requirements are:

(a) five full courses (or equivalent) beyond the M.A. level, including two 700 level seminars offered by the Institute.
(b) knowledge of an Islamic language, other than Arabic, at the second year level.
(c) comprehensive examinations in four fields (1) Islamic history (2) Islamic thought (3) Islamic institutions (4) modern developments in the Islamic world.
(d) reading knowledge of (1) French OR German at an advanced level, or (2) French AND German at an elementary level.
(e) a dissertation judged to contain original research.

COURSES FOR HIGHER DEGREES

- **397-504D THE ISLAMIC TRADITION.** (6 credits; 3 hours). The Islamic community and the elements of its tradition — scripture, prophet, doctrine, practices, institutions — considered historically and in terms of religious meaning. (Offered in alternate years). (Not open to students who have taken 260-450D or 397-604D).

- **397-510D HISTORY OF ISLAMIC CIVILIZATION: THE CLASSICAL PERIOD.** (6 credits; 3 hours). The origins of the early Islamic state in Arabia and the Umawi Caliphate. The growth of an Islamic civilization, and the Abbasi Empire until the Seljuk period. The rise of the Fatimis. The Caliphate of Cordoba. (Offered in alternate years). (Not open to students who have taken 397-610D).

  397-511D HISTORY OF ISLAMIC CIVILIZATION: THE MEDIAEVAL PERIOD. (6 credits; 3 hours). The Seljuks, and the mediaeval synthesis. The Moors in Spain and North Africa. The Crusades. The Mongols and the destruction of the Baghdad Caliphate. The Mamluk, Persian, Turkish and Indian Empires until 1700. (Offered in alternate years). (Not open to students who have taken 397-611D)
  Professor Little

  397-521D INTRODUCTORY ARABIC. (6 credits; 5 lecture hours and laboratory). (Not open to students who have taken 397-100D or 397-621D).
  Professor Boullata

  397-522D LOWER INTERMEDIATE ARABIC. (6 credits; 4 lecture hours and laboratory; Prerequisite: 397-521D or equivalent). (Not open to students who have taken 397-200D or 397-622D).
  Professor Kamali

- **397-602D SURVEY OF ISLAMIC PHILOSOPHY.** (3 hours). A history of the attempts of Muslim thinkers to adapt Greek philosophy to Islamic revelation; study of the Translation Movement, and Muᶜtazila, and the rise of Kalam; readings in al-Kindi, al-Farabi, Ibn Sina, Ibn Rushd, Al-Razi, and other important Muslim philosophers.

  397-603A RESEARCH MATERIALS FOR ISLAMIC STUDIES. (1 hour). A practical introduction to the materials academically available for these studies. Some preliminary discussion of research methods, of the preparation of reports and essays; documentation; transliteration. Particular attention is given to the special reference books and serials used in the field.
  Staff

- **397-605D ARABIC LITERATURE: A.D. c500-1970's.** (3 hours). A historical survey of Arabic literature from pre-Islamic to modern times, emphasizing major poets and writers and considering change in themes, genres, techniques, and thought. Available English translations will be used.

  397-614D THE HISTORY OF ISLAMIC INDIA. The Arabs in India; the establishment of the Delhi Sultanate; the interaction of Islam and Hinduism. The Mughals: political history; social, intellectual, and religious trends. The fall of the Mughals and the end of Muslim rule in India.
  Professor Adams

- **397-615A/B HISTORY OF THE ISLAMIC EAST (1256-1700).** A survey of the development of Islamic civilization in Iran, Iraq, Anatolia, and Central Asia after the Mongol invasions until the collapse of the Safavid dynasty; the Ilkhanid, Timurid, and Safavid dynasties.

  397-623D HIGHER INTERMEDIATE ARABIC. (3 hours; Prerequisite: 397-522D or equivalent).
  Professor Little

- **392-624D ADVANCED ARABIC.** Reading in Arabic source material, usually in conjunction with thesis research.

  397-631D INTRODUCTORY TURKISH. (5 hours).
  Professor Turgay

- **397-632D LOWER INTERMEDIATE TURKISH.** (3 hours; Prerequisite: 397-631D or equivalent).

  397-633D HIGHER INTERMEDIATE TURKISH. (3 hours; Prerequisite: 397-632D or equivalent).
  Professor Turgay

- **397-634D ADVANCED TURKISH.** Reading of Turkish source material, usually in conjunction with thesis research.

  397-641D INTRODUCTORY PERSIAN. (3 hours; Prerequisite: 397-521D or equivalent).
  Professor Kamali

  397-642D LOWER INTERMEDIATE PERSIAN. (3 hours; Prerequisite: 397-641D or equivalent).
  Professor Mohaghegh

- **397-643D HIGHER INTERMEDIATE PERSIAN.** (3 hours; Prerequisite: 397-642D or equivalent).

- **397-644D ADVANCED PERSIAN.** Reading of Persian source material, usually in conjunction with thesis research.

- **397-670D ISLAMIC ART AND ARCHITECTURE.** Study of the development of Islamic art and architecture as related to the principles of Islam as a religion and regional traditions.

  397-680A PRO-SEMINAR IN OTTOMAN INSTITUTIONS. (Seminar, 2 hours). This course will deal with the major Ottoman political,

social and economic institutions such as: the bureaucracy (central and provincial), the military, the land tenure system (timar, iltizam, ayans, the Land Code of 1858), the judicial system (seriat, kanuns, and the courts), religious organizations (ulema, medreses, tarikats) and guilds.
Professor Turgay

- **397-700D Ph.D. PRELIMINARY EXAMINATION IN ISLAMICS. RESEARCH SEMINAR.** (Seminar, 2 hours). For all students writing theses and all others engaged in research.

397-704D ISLAMIC THEOLOGY. (Seminar, 2 hours). A study of significant aspects of the Muslims' attempt to give intellectual expression to their faith in different periods in the past.
Professor Mohaghegh

- **397-705D STATE AND GOVERNMENT IN ISLAM.** (Seminar, 2 hours). A survey of the evolution of the various patterns and concrete manifestations of Muslim political theory and practice through the classical and mediaeval periods of Islamic history. The rise of modern states and political problems in various Muslim countries.

- **397-706D ISLAMIC LAW.** (Seminar, 2 hours). The nature of the law, its origins and historical development, the mediaeval schools of law, modern evolution of the law, and its role in Islamic religious and political thought.

- **397-708D QUR'AN EXEGESIS.** (Seminar, 2 hours). A study of two or three suras taken as units, and a number of Qur'anic passages and key words. Attention will be given to issues of style, form and chronology, as well as to the content matter, the latter including a consideration of the history of the interpretation of these sections.

- **397-710D SHI'AH THOUGHT.** (Seminar, 2 hours). A history of thought among the Shi'ah with consideration of important thinkers, movements and books.

- **397-711A ISLAMIC JURISPRUDENCE (USUL AL-FIQH).** (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). A study of the sources of Islamic law (usul al-fiqh) according to Muslim jurists, both Sunni and Shi^{c}i.

- **397-712B ISLAMIC CONSTITUTIONAL LAW.** (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). Theories of government, caliphate, imamate, judicial and semi-judicial organizations; rights and obligations of the individual and the state.

397-713A ISLAMIC LAW OF PERSONAL STATUS, I. (Seminar, 2 hours: Prerequisite: Reading knowledge of Arabic). Marriage, essential requirements and formalities of the marriage contract — guardianship, dower, maintenance, and polygamy; divorce, its essential requirements and variations in both Sunni and Shi^{c}i law. Modern reforms in marriage and divorce.
Professor Kamali

397-714B ISLAMIC LAW OF PERSONAL STATUS, II. (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). Succession, competence to inherit, legal heirs and their entitlements; administration of estates, bequests, gifts and religious endowments in both Sunni and Shi^{c}i law. Modern legislative reforms in various Muslim countries.
Professor Kamali

397-721D ISLAMIC DEVELOPMENTS IN THE MODERN ARAB WORLD. (Seminar, 2 hours). Internal reform movements and responses to external pressures, 1800 to the present.
Professor Abu-Hakima

- **397-722D THE DEVELOPMENT OF SECULARISM IN MODERN TURKEY.** (Seminar, 2 hours). An analysis of the transition from Ottoman institutions and ideas to those of republican Turkey.

397-723D ISLAMIC DEVELOPMENTS IN MODERN INDIA AND PAKISTAN. (Seminar, 2 hours). Significant movements in Islamic thought and political action, since the Mughul downfall. The influence of Sirhindi; Waliyullah and his school; the Mujahidin; 1857, De'oband; Aligarh; Azad and Muslim participation in Indian nationalism; Iqbal; Pakistan. The Munir Report; Pakistan constitutional and ideological issues; Muslims in India since partition.
Professor Adams

- **397-725D THE ISLAMIC HISTORY OF WEST AFRICA.** (Seminar, 2 hours). A study of an Islamic role in the development of institutions and ideas in the western and central Sudan, from the 11th century to the present day. With special reference to (i) relations with the wider Muslim World, (ii) sources, literary and archaeological, for a study of this area.

- **397-726D ISLAMIC DEVELOPMENTS IN MODERN IRAN.** (Seminar, 2 hours). Social, economic and political developments from about 1800 to the present.

397-727D MODERN HISTORY OF THE GULF STATES. (Seminar, 2 hours). The history of the Arabian Peninsula in modern times with special emphasis on the Gulf States. Concentration will be on Saudi Arabia, Kuwait, Bahrain, Qatar, the Union of the Arab Amirates, and 'Uman from the 18th century to the present.
Professor Abu-Hakima

- **397-732D THE RISE AND EVOLUTION OF NATIONALISM AMONG MUSLIM PEOPLES.** (Seminar, 2 hours). A comparative approach to the motivation and ideology in nationalist movements among Muslim peoples. Analysis of general trends and distinctive characteristics in various nationalist movements and their orientations, and the doctrinal disputes among Muslim intellectuals who attempted to explore the nature of the nation and its making in relation to universalist ideas of Islam.

397-739A/B SPECIAL TOPICS.

- **397-740D THE MYSTICAL TRADITION OF ISLAM.** (Seminar, 2 hours). The varieties of mystical thought in Islam, primarily as seen in Sufism, its historical development and its place in Islamic culture. Analytical study of major authors, their writings and their central problems. Reading of primary sources in Arabic and Persian.

397-745D THE PHILOSOPHICAL TRADITION IN ISLAM. (Seminar, 2 hours). The development of philosophic thought among Muslims, its classical background and its role in Islamic culture. Analytical study of major authors, their writings and their central problems. Reading of primary sources in Arabic and Persian. (For 1982-83 "the school of Isfahan: Mir Damad and Mulla Sadra").
Professor Mohaghegh

397-751B SOCIAL AND ECONOMIC DEVELOPMENTS IN MUSLIM COUNTRIES, I. (Seminar, 2 hours). A comparative analysis of economic and social transformation in various Muslim countries during the nineteenth century; external and internal causes for change; responses of government and society.
Professor Turgay

- **397-752A/B SOCIAL AND ECONOMIC DEVELOPMENTS IN MUSLIM COUNTRIES, II.** (Seminar, 2 hours). A study of development problems in Muslim countries during the twentieth century; contemporary ideas of, and policies toward, modernization as reflected in economic, social and political measures with emphasis on the relevance of Islamic values to development problems.

- **397-758A/B ARABIC HISTORIOGRAPHY: THE CLASSICAL PERIOD.** (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). Readings in early Arabic historiography and consideration of critical problems arising from the use of such materials.

- **397-759A/B ARABIC HISTORIOGRAPHY: THE MEDIAEVAL PERIOD.** (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). Readings in Arabic historiography dating from the 11th century and later. Consideration of critical problems arising from the use of such materials.

- **397-763A/B MEDIAEVAL ARABIC DIPLOMATIC.** (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). The decipherment and analysis of mediaeval documents and the study of Islamic chancery theory and practice, with emphasis on the Mamluk period.

- **397-764D OTTOMAN HISTORY.** (Seminar, 2 hours). A critical examination of significant development in political, social and economic spheres.

397-778A THE QUR'AN AND ARABIC STYLISTICS. (Seminar, 2 hours). The style of the Qur'an will be analyzed in a critical reading of Arabic texts on the theory of inimitability (*iᶜjaz*).
Professor Boullata

- **397-780D STUDY OF A MAJOR ARAB AUTHOR.** (Seminar, 2 hours). Critical reading and discussion of the works of a major author in Arabic studied against the background of his times. Authors may include poets such as al-Mutanabbi, al-Maᶜarri, Ibn al-Farib, Shawqi, al-Sayyab or prose-writers such as al-Jahiz, Badiᶜ, al-Zaman, Taha Husayn, Mahfuz, Idris or others.

- **397-785A/B MODERN ARABIC LITERATURE I.** (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). A study of trends in Arabic literature during the 19th century, with emphasis on the literary and intellectual awakening *(al-nahda).*

397-786B MODERN ARABIC LITERATURE II. (Seminar, 2 hours; Prerequisite: Reading knowledge of Arabic). An examination of developments in Arabic literature during the 20th century, with special attention to change resulting from the encounter between modernity and tradition.
Professor Boullata

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The University reserves the right to make changes without prior notice to the information contained in this publication, including the alteration of various fees, schedules and the revision or cancellation of particular courses.

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CALENDAR OF DATES FOR SESSION 1982-83

1982

May 3, Monday	Summer Session begins, Special BSW students
June 18, Friday	Summer Session ends, Special BSW students
September 9, Thursday	Registration, MSW students
September 9, Thursday	Registration, BSW students
September 13, Monday	Lectures commence, MSW students Lectures commence, BSW students
September 21, Tuesday	Field Practice commences, BSW students
October 11, Monday	Thanksgiving Holiday, lectures cancelled
To be annonced	Fall Convocation
December 10, Friday	Last day of lectures, all students
December 17, Friday	Last day of field practice

1983

January 4, Tuesday	Field practice resumes, BSW students
January 5, Wednesday	Lectures and Field Practice resume, MSW students
January 5, Wednesday	Lectures resume, BSW students
February 24-25, Thursday, Friday	Mid-term study period, lectures cancelled
April 1-4, Friday-Monday	Easter Holiday
April 7, Thursday	Last day of lectures and Field Practice, all students
April 13, Wednesday	Lectures resume, Special BSW students
April 14, Thursday	Last day for submission of MSW research reports

1 STAFF

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3 SCHOOL OF SOCIAL WORK

3.1 HISTORY AND PLACE IN THE UNIVERSITY

In 1918, McGill University founded a School for Social Workers which was discontinued in 1932. In 1933, with the approval and cooperation of the University, an independent school, offering a two-year program to university graduates and known as the Montreal School of Social Work, was established. In October 1945, the University resumed the function of social work education and the Montreal School of Social Work, by agreement of its Board of Trustees, became the McGill University School of Social Work. The final step in integrating the School into McGill University was taken in 1950, since which time the University has assumed complete responsibility for it.

The School is an integral part of McGill University and its students are able to participate fully in the varied life of a great university. It has its own building providing classroom accommodation, research laboratory, and a compact up-to-date social work library to which new books, documents, and pamphlets are added continually. Students may also use the McLennan Library, the Redpath Library, and other special libraries.

3.2 OBJECTIVES AND EDUCATIONAL PHILOSOPHY

The School of Social Work is a professional school whose primary objective is to prepare students for successful careers and for leadership in the field of social welfare. The goal is to educate students for practice not only in established and well structured services, but also in initiating and pioneering new and less explored areas of welfare. Students are expected to acquire the necessary knowledge, values, attitudes and technical skills of professional practice. They are, in addition, helped to develop critical and experimental approaches in the hope that during their professional careers they may contribute to the improvement of practice skill and knowledge and to the development of increasingly constructive and humane social policy and organization.

This School is a member of the Canadian Association of Schools of Social Work. Through its membership in this and other national and international organizations, the School is in close touch with significant developments in social work education on the North American continent, and throughout the world.

Until 1969-70, the School offered programs only at the graduate level, leading to the degree of Master of Social Work and the Diploma in Advanced Practice in Social Work. Conscious of a general need for more professionals in practice and for extension and strengthening of professional education, the School in 1969-70 initiated a Bachelor of Social Work degree program. This program now constitutes the first professional degree, preparing graduates for direct entry into practice, with general professional skill. It also forms a strong foundation for a specialized Master's degree.

The School does not select any special practice method or theory, but encourages first the establishment of general competence and from that base supports the choice of the individual student of specialization in specific fields of practice.

3.3 ADMINISTRATION OF THE SCHOOL

The School of Social Work is administered under the authority of the Faculty of Graduate Studies and Research of McGill University. The Director of the School is directly responsible to the Dean of that Faculty. The graduate degree programs are authorized by the Graduate Faculty Council to which representatives of the School are elected. The B.S.W. program is authorized by the Faculty of Arts.

Internal administration of the School is under the general direction of the Director. Various administrative and curriculum committees, with representatives of students and of the teaching staff, are charged with development and administration of major aspects of the School's program.

3.4 THE SCHOOL AND THE MONTREAL COMMUNITY

Montreal, the largest and most cosmopolitan city in Canada, affords varied community resources

in both the private and public social services. A bilingual community, it affords unique opportunities for the study of social problems.

The School receives the full and generous cooperation of facilities for supervised field practice.

4 GENERAL INFORMATION

4.1 DEGREES AND DIPLOMAS

Three degrees and a diploma may be earned at the School. The Bachelor of Social Work degree is awarded to students who successfully complete the degree program at the undergraduate level. Students holding the B.S.W. may be admitted to the Master of Social Work program.

The Diploma in Advanced Practice in Social Work is awarded to students who already hold the Master's degree and who successfully complete the requirements for this diploma.

A limited number of special candidates may be accepted for advanced, interdisciplinary studies leading to a Ph.D.

4.2 BACHELOR OF SOCIAL WORK DEGREE

EDUCATIONAL OBJECTIVES

The Faculty of Arts, through the McGill University School of Social Work, offers an undergraduate program of professional studies in Social Work, leading to the Degree of Bachelor of Social Work (B.S.W.). The B.S.W. degree course has the following principal educational objectives:

1. To prepare students for professional practice in any one of a range of social service positions. (The B.S.W. degree represents the point of admission into the Corporation of Professional Social Workers of the Province of Québec and the Canadian Association of Social Workers.)
2. To prepare selected students for entry into more specialized professional studies at the graduate level.

It is the policy of the School of Social Work to ensure that social workers are as diverse as the communities they serve, and when reviewing prospective applicants for the Special BSW and the Undergraduate BSW programs, special consideration is given to persons of varied backgrounds, including members of minority groups, members of low-income communities and those with paid or volunteer community work experience.

The B.S.W. degree is offered in two ways: as a three-year undergraduate B.S.W. program and as a Special B.S.W. program for applicants who already have an undergraduate degree in another subject.

ADMISSIONS REQUIREMENTS

THREE-YEAR UNDERGRADUATE B.S.W.

Three categories of applicants are eligible to apply for admission to the three-year Bachelor of Social Work:

(i) Applicants who have obtained the Diploma of Collegial Studies or have completed equivalent studies. Students who have not taken a course in statistics will be required to take an equivalent course during their undergraduate studies. Students who want to extend their preparation may wish to include courses in introductory psychology, introductory sociology and French, although these are not prerequisites.

(ii) Transfer Students
Students who have begun undergraduate degree programs either at McGill or at other universities may apply to transfer to the School of Social Work. Depending on courses that they have already completed, some credits may be transferable toward the B.S.W. degree. Transfer students are usually required to complete a minimum of 60 McGill credits to receive a B.S.W. degree.
As enrolment is limited, candidates, whether entering or transfer students, are expected to have better than average grades. Within the group of applicants who meet the academic requirements, preference is given to those who have had social work-related experience, paid or volunteer, and also to those who demonstrate personal suitability for the social work profession.

(iii) Mature Students
Residents of Canada who are 23 years of age or older, and who lack the academic background normally required for admission, may apply for entrance as mature students. To be considered for the B.S.W. program, applicants must have had significant paid or volunteer community work experience in related fields and be able to produce satisfactory recommendations from community social agencies with which they have been affiliated.

More details on entrance requirements can be obtained from:

Admissions Office
McGill University
845 Sherbrooke Street West
Montreal, PQ, Canada H3A 2T5
Telephone: (514) 392-5300

SPECIAL B.S.W.

A limited number of students with Bachelor's degrees are admitted into a Special B.S.W. program consisting of 48 credits of study over a 13 month period.

The minimum requirements for admission to the Special B.S.W. are as follows:

1. Bachelor's degree with a high standing in the final year; or, if graduating in the current year, in the last complete year.
2. Completionof at least 5 full courses (30 credits) in the social sciences.
3. An introductory course in statistics.

Normally candidates will not be considered unless their GPA is 3.0 or better. Within the group of applicants who meet this requirement, preference will be given to those who have had social work related experience, paid or volunteer, and also to those who demonstrate personal suitability for the profession of social work.

The Special B.S.W. is a full-time program of study. Those wishing to pursue this program follow a pattern of study starting with the initial summer sessionin May (6 weeks), the academic session (Sept.-April), and the second summer session (April-July of the following year).

Application for admission should be made at the School of Social Work.

FEES

The University reserves the right to make changes without notice in the published scale of fees. No degree or diploma will be released until all fees are paid in full.

B.S.W. Program

Tuition fees are $19 per credit, (see also *General Announcement* for details of special fees), and this fee includes all the regular charges of the University for registration, tuition, laboratories and libraries. Student Service fees of $95 and Students' Societies fees of $44 are assessed separately and must be paid at the same time as the tuition fees.

Now foreign students are required by the Québec government to pay 60% of the estimated cost of their studies. In 1981-82 this was $4,128 per year of $137.60 per credit. The rate for 1982-83 will be announced as soon as it is determined by the government. Returning foreign students will pay $3,500 per year of $116.70 per credit and an additional $1,000 per year in each subsequent year until they reach the rate paid by newly admitted foreign students.

There is aso a fee of $25 for Application for Graduation.

B.S.W. CURRICULUM

THREE YEARB.S.W.

a) The B.S.W degree is awarded upon successful completion of 90 credits of study; it consists of a combination of professional social work courses, supervised field practice and related courses drawn principally from the social sciences.

The 90 credits of study are made up as follows:

— a minimum of 48 credits (and a maximum of 60) must be social work courses
— a minimum of 18 credits (and a maximum of 30) must be social science courses
— any remaining credits (a maximum of 12) may be taken according to the student's own individual interests. If credits in French language are required, they will be taken from among the credits available after satisfactionof the minimum requirements of social work (48) and social science (18) credits.

The mix of these possible types of credits will vary according to each student's needs.

b) The distribution of the 48-60 credits of social work content over the three years will be approximately as follows:

Year I — 12-15 credits
Year II — 18-21 credits
Year III — 18-24 credits

c) First Year Requirements
For students entering their first year of Social Work, required courses are: Social Work 240A (Introduction to Social Work — 3 credits), 241A (Introduction to the Welfare State — 3 credits), and 255B (Social Work Practicum — 3 credits). They may take one or two other 3-credit social work courses. The remaining 15 or 18 credits of the first year of the program will be taken elsewhere in the University. Consult the *Faculty of Arts and Science Announcement* for course descriptons.

d) Second Year Requirements
B.S.W. I required courses are: Social Work 440A and Social Work 456D, plus at least one of 352A, 441B, 476B, 474B, 475A. 9-12 credits will be taken elsewhere in the Univer-

sity. Remaining credits can be social work electives. Research 270 is normally taken during this year.

e) Third Year Requirements
B.S.W. III required courses are: Social Work 458A/B and 480D, plus at least two of the following, 472, 473, 474, 475, 477, 487, 488, 497, 498. The remaining credits are to be used to complete requirements for the B.S.W. degree.

SPECIAL B.S.W.

The Special B.S.W. for those holding an undergraduate degree, will be offered in three time blocks: a summer session of 6 weeks, May-June, one regular academic year, and a summer session of 12 weeks, April-May-June. Students in this program will take 48 credits, including courses in social work practice, field practice, and policy. Required courses are Social Work 352L, 353L, 270L, 481A, 482B, 456D, 458, 480D and at least two of the following courses: 472, 473, 474, 475, 477, 487, 488, 497, 498. The remaining credits willbe selected from other courses offered at the B.S.W. level.

4.3 THE MASTER OF SOCIAL WORK DEGREE

EDUCATIONAL OBJECTIVES

The global objective of the Master's program is the provision of advanced professional training by means of integrated and individualized learning experiences. At a more specific level, the educational goals are:

1. A capacity for critical understanding of the social problems and issues, the population groups, the institutional frameworks and the policy issues pertaining to the chosen-concentration;
2. the development of an advanced skill in a particular mode of practice (broadly defined, see below);
3. the ability to initiate, execute and report on an independent study essentially related to the student's area of concentration.

ADMISSION REQUIREMENTS

Students who have successfully completed a B.S.W. may be admitted to the Master of Social Work program.

Because of the large number of possible candidates, admission to the M.S.W. program is not guaranteed for any person simply by reason of satisfactory completion of a B.S.W.

As a general rule, applicants to the M.S.W. program will have completed course work in statistics and in research methods at the undergraduate level.

DURATION

Three terms. The third term may optionally be taken in the summer, in which case the entire program may be completed within one calendar year. In some cases, part-time study can be arranged.

CONCENTRATIONS

The areas of concentration that are offered in the program include:

Administration
Aging
Child and family welfare
Community change
Corrections
Health services
Industrial social work
Marriage and family counselling
Policy
Social work in industry
Youth and school services

The term "Concentration" as used here implies a concern with specific types of social issues and populations, with certain kinds of service-giving organizations or kinds of interventions. It is acknowledged that there can be considerable overlap between these areas and that students' particular interests may link them together. For example, a student interested in Child and Family Welfare or in Health Services, or some other substantive area, has the choice of a program emphasizing direct practice, or one emphasizing administration and policy.

SUMMARY OF REQUIREMENTS

The M.S.W. degree is a second level of professional study, in which students pursue specialized programs at an advanced level. It is normally made up a research component, field practice and course work. The relative emphases of these three parts of the program are determined according to the individual student's goals and direction. Students' contributions to formulating their own programs are emphasized; candidates are required to identify a focussed area in which they wish to extend their knowledge and skills and in which they plan to conduct their research.

All students must complete 45 credit equivalents, distributed as follows:

Research: Each student must undertake an independent study project, culminating in a formal written report. This may take any one of a number of forms, for example, a library study, or a piece of empirical research involving collection of original data. (12 credits).

Practicum: This permits the student to develop and demonstrate professional competence at an advanced level. Both the setting and the amount of time involved will depend on each student's professional interests and needs. (From 0 to 12 credits).

Classroom work: In addition to courses listed in section 5.4 below, this may include tutorials arranged to suit the student's learning priorities. Where it can be arranged, courses may be taken in other departments. (7-11 half courses, equivalent to 21-33 credits, depending on requirements for a practicum).

TIME LIMITATIONS

Full-time students must complete the M.S.W. degree *within four years of initial registration*, and part-time students must complete the degree within five years of initial registration. Under certain conditions, one additional year may be permitted. These conditions are described in the *Graduate Faculty Announcement.*

FEES

The University reserves the right to make changes without notice in the published scale of fees. No degree or diploma will be released until all fees are paid in full.

Foreign students are required by the Québec government to pay 60% of the estimated cost of their studies. The rate for 1982-83 will be arrived as soon as it is determined by the government. Exemption from Foreign Student Fees may be claimed by students in certain categories. A list of these categories and required application forms are available at the Graduate Faculty Office or the Registrar's Office.

Full-time students must register for three terms. The tuition fee for each term is $285. There are additional charges of $47.50 per term for Student Services and $21.75 per term for Students' Societies.

Fees for part-time students are $19 per credit. Additional charges for Student Services and Students' Societies are assessed according to the number of credits taken.

For both full-time and part-time students, the minimum total fee for the program is $855. If, after this, all requirements for the M.S.W. degree are not completed, a student must pay additional fees of $20 per term for each additional term that is needed. Students' Societies charges are $8.85 per term.

There is also a fee of $25 for Application for Graduation.

Further details concerning payment of fees and regulations concerning withdrawal may be obtained inthe *General Announcement*, available at the Registrar's Office.

4.4 DIPLOMA IN ADVANCED PRACTICE

EDUCATIONAL OBJECTIVES

Students who have a Master's degree in Social Work and three years of professional practice may be admitted to the program leading to a Diploma in Advanced Social Work Practice. This year of advanced study is designed to deepen understanding and develop further professional skill in *Marriage and Family Counselling, Rehabilitation or Corrections, Research, Welfare Policy, and Administration.*

ADMISSION REQUIREMENTS

Candidates for advanced study should be those whose previous academic and professional performance has been of a high order. More specifically:

1. The candidate should possess personal characteristics and a breadth of professional interest that give promise of professional leadership. The candidate should show capacity for scholarship and independent study.
2. The candidate should have completed the M.S.W. program, with superior standing at a recognized School of Social Work.
3. The candidate should have had normally a minimum of three years of professional experience, following completion of the M.S.W. program, and should be able to supply independent reports of professional competence.

SUMMARY OF REQUIREMENTS

Courses

The Diploma in Advanced Practice will be awarded when the student has completed a minimum of four full courses and passed a comprehensive written examination.

Time Limit

The time limit for fulfilment of the requirements for the Diploma shall in no case be more than *four years from date of enrolment.*

Candidacy

It is desirable that students signify their interest in candidacy for Diploma either upon entering the Program (provided they have identified their area of specialization) or upon completion of at least one full course.

Students who are not in a position to signify their interest in candidacy at either of the aforementioned points may do so later in their program. However, under the latter circumstances, if a number of unrelated courses already have been completed, it may be necessary to complete other courses specific to the student's area of specialization.

Formal application for admission to candidacy for the Diploma should be made in writing to the Chairman of the Post-master's Committee upon successful completion of at least one full course in a theoretical area.

Applications will be evaluated by this Committee on the basis of performance in courses already completed, demonstrated capacity for independent study at an advanced level and the recommendation of the student's adviser.

FEES

The University reserves the right to make changes without notice in the published scale of fees. No degree or diploma will be released until all fees are paid in full.

Tuition fees are $19 per credit plus appropriate Students' Societies and Student Services fees. See section 4 concerning fees for foreign students.

4.5 DOCTORAL STUDIES

In accordance with existing regulations of the Faculty of Graduate Studies and Research, a limited number of special candidates may be accepted for advanced studies leading to a Ph.D. The programs of such students which will be interdisciplinary in character, and will be designed ad hoc, bearing in mind the needs and accomplishments of the individual student, will include a requirement for courses and seminars within the School of Social Work and in other academic units of the University, but will, in particular, require a substantial research thesis. For further information, write to the Director of the School of Social Work.

4.6 STUDENT STANDING

1. M.S.W. AND ADVANCED DIPLOMA students are expected to maintain at least "B" standing in all courses.
2. Permission to write supplementary examinations or to repeat courses is granted only upon recommendation of the Committee on Standings.
3. All students are admitted on probation. Students may be asked to withdraw at any point if, after careful review of their progress, the Committee on Standings deems this to be advisable.
4. Students enrolled in a full program of courses in any term are normally expected to devote their full time to study. Any plan for part-time study must be approved by the student's adviser.
5. B.S.W. students should refer to the *Arts and Science Faculties Announcement for regulations concerning student standing.*

4.7 ACADEMIC CREDIT TRANSFER AGREEMENT

Students wishing to take courses for credit towards their McGill degree at any university in the Province of Québec should refer to the section entitled "Academic Credit Transfer Agreement" in the *General Announcement* for details.

4.8 LANGUAGE REQUIREMENT FOR PROFESSIONS

Québec law requires that candidates seeking admission to provincially-recognized Québec professional corporations must possess a working knowledge of the French language, i.e. be able to communicate verbally and in writing in that language.

To demonstrate this capability, candidates will be required to pass an examination set by the Office de la langue française, unless they can show that three years of instruction in a French post-primary school have been completed. The professional corporation will require this proof of attendance or of successful completion of the Office examination.

Examinations take place every three months and may be attempted an unlimited number of times.

The examination may be attempted by registered students during the two years prior to the date they receive a degree giving access to a professional corporation. Arrangements for sitting the exam while still a student must be made through the faculty office.

More information may be obtained from the Office de la langue française, Tour de la Bourse (Place Victoria), 15e étage, Montréal, Québec H4Z 1G8, Telephone 873-8361.

Students who need to acquire a functional level of proficiency in French may register in courses at either the English and French Language Centre, 3438 McTavish Street, Telephone 392-5727, for courses during the day, or at the Centre for Continuing Education, 772 Sherbrooke Street West, Telephone 392-4901, for courses in the evening.

Students already proficient in French but who wish to keep up practice may register in courses at the Department of French Language and

Literature, 3460 McTavish Street, Telephone 392-4577, or at the Centre d'études canadiennes-françaises, 3475 Peel Street, Telephone 392-5200.

*McGill degrees and diplomas currently give access to corporations regulating the activities of the following professional groups:

Advocates
Agrologists
Architects
Chartered Accountants
Chartered Administrators
Chartered Appraisers
Chemists
Dentists
Dietitians
Engineers
Industrial Administration Accountants
Industrial Relations Counsellors
Licensed General Accountants
Notaries
Nurses
Occupational Therapists
Physicians
Physiotherapists
Psychologists
Social Workers
Speech Therapists & Audiologists
Urbanists
Vocational Guidance Counsellors

4.9 BURSARIES SCHOLARSHIPS, LOANS AND AWARDS

SCHOOL

Some sources exist for both loans and bursaries through the School. Inquiries may be made at the time of application for admission to the School. Since the School does not receive all the resources for bursary and/or loan purposes until late during the first term, students should endeavour to make other arrangements for their financial needs, whenever possible, prior to entering the School.

The School has access to a limited amount of funds for loans and bursaries, made available by individuals or private organizations. These funds are insufficient to meet all needs but may be used as supplements to other sources.

Inquiries concerning bursaries and loans should be made at the time of application for admission. Special request forms are available.

For the possible availability of bursaries open to students in all faculties and schools inquiry may also be made to the Student Aid Office of the University, 3637 Peel Street.

AWARDS

The Patrick Deehy Memorial Fund provides bursary assistance to disadvantaged undergraduate students. Applications are to be made in the spring for the funds, which at present, are limited.

The Alumni Committee of the School makes two awards each year:

1) ***The Alumni Prize*** (currently $150) awarded to the outstanding student in each M.S.W. class.
2) ***The Esther Kerry Award*** (currently $500) to further either innovative projects in the field of social work or individual professional advancement. Any current student, graduate or staff member of the School may apply for this award. Applications are invited each spring in the Alumni Newsletter, and the award is made in June.

FEDERAL

The Federal Welfare Grants program awards a small number of graduate scholarships based upon academic achievement. Application should be made to the Welfare Grants Division, Department of National Health and Welfare, Ottawa, Ontario.

Overseas students should inquire of their governments concerning the availability of United Nations, Colombo Plan or their country's own study grants.

PROVINCIAL

Most provinces offer bursaries on condition that recipients accept employment in these provinces upon graduation. Information should be obtained from Provincial Departments of Welfare.

Québec residents may apply before January 1 for educational bursaries for the following year. Application should be made to the following: Service des Bourses de Perfectionnement, Ministère de l'Éducation, Hôtel du Gouvernement, Québec, PQ, or through the Student Aid Office of the University, 3637 Peel Street.

4.10 STUDENT SERVICES

Full information concerning student services and residential facilities is given in the *General Announcement* available from the Registrar's Office.

4.11 GENERAL INFORMATION FOR NON-CANADIAN STUDENTS

All non-Canadian students and students who are not permanent residents must obtain a student visa from a Canadian Embassy or Consulate in their area. Student visas can be renewed annually in Canada subsequent to the students' registration. All full-time non-Canadian students and students who are not permanent residents must enrol in the compulsory McGill Non-Canadian Student Health and Accident Insurance Plan.

Further information concerning this Plan may be obtained from the Health Service or the Liaison Officer to the Dean of Students, 3637 University Street.

5 COURSES OF INSTRUCTION

5.1 B.S.W. COURSES

B.S.W. courses, with the exception of 240, 255, 353, 440, 441, 476, 477, 488, 456, 472, 473, 480, 481, 482, 485, 487, 489, 497 and 498, are open to non-social work students. Permission of the instructor, however, must be obtained prior to registration.

407-240A INTRODUCTION TO SOCIAL WORK. (3 credits). Frameworks for understanding the personal and subjective predicaments of selected client populations e.g. the elderly, the urban poor, single-parent families, children at risk, the handicapped. Examination of social legislation and social services. Introduction to social work practice concepts and methods.
Professor Urtnowski

407-241A INTRODUCTION TO THE WELFARE STATE. (3 credits). An introduction to the welfare state. Topics will include: comparative frameworks for analyzing the welfare state, ideologies and values of the Quebec and Canadian welfare systems; historical origins of services. Attention will be given to the development of social work services. Poverty and social security measures will be examined in order to illustrate the general themes.
Professor Shragge

407-255B SOCIAL WORK PRACTICUM. (3 credits). An introductory field experience to provide U1 students with the opportunity to observe social work practice, to participate in the work of a social organization, to assume responsibility for a limited practice assignment, and to conduct critical analyses of their field experience through conference discussions and individual tutorials. Corequisite — 407-254D.
Staff

407-270A,B INTRODUCTION TO SOCIAL WORK RESEARCH. (3 credits). This course is intended to help students make effective use of published research reports and agency statistics, and to show them how to conduct simple research projects. It covers problem formulation, research design, data collection, analysis and interpretation, use of the computer terminal, and report writing. (Modular format). Prerequisite — Introductory course in statistics.
Professor Duder

407-352A THE PUBLIC SOCIAL SERVICES IN CANADA. (3 credits). An introduction to the programs of public social services in effect in Canada in the fields of income, housing and health. The course seeks to acquaint students with the characteristics of these programs, and with the policy issues which surround them and to enhance the students' ability to evaluate the functioning of the programs. This is a modular course.
Professor McGilly

407-353L INTRODUCTION TO PRACTICE. (6 credits). Introduction to the principles and practice of social work. Approaches to social problem identification and analysis. The role of the social worker as an agent of change or of social control. Elements of working with individual groups and communities. Laboratory periods will permit the application of course content to practice.
Professors Hopmeyer and Katz

407-440A GENERALIST SOCIAL WORK PRACTICE. (3 credits). A systems approach to social work practice with emphasis on the development and understanding of alternative social work interventions. A look at the problem-solving process and the tasks and skills required of the social work practitioner in order to facilitate planned change. Prerequisite - 407-254D, Corequisite - 407-456D.
Professors Werk and Rotholz

407-441B SEMINAR INSOCIAL WORK PRACTICE. (3 credits). This course will focus on the theory of casework practice with individuals and families. Students will be taught the techniques of family and individual counselling by means of lectures and videotapes. Prerequisite — 407-440A, Corequisite — 407-456D.
Professors Steele and Cooper

407-451A CHILDREN'S NEEDS AND SOCIAL SERVICES. (3 credits). The identification and analysis of the needs of children and their families. Consideration of the processes of selected social services, e.g. day care, visiting homemakers, foster family and institutional care, adoption, etc., designed to support, supplement and substitute for the family. Special emphasis will be placed on social legislation related to neglected, abused and dependent children.
Professor Reichertz

407-452A SOCIAL WELFARE ORGANIZATIONS AND DISADVANTAGED CLIENTELE. (3 credits). An examination of the structure of organizations serving the needs of socially disadvantaged persons or groups, and the processes through which such services are provided. Particular attention will be paid to the definition, screening and serving of disadvantaged clients as compared to those drawn from more "privileged" groups in society. Strategies for changing such organization will be explored.
Staff

407-453B YOUTH AND YOUNG ADULTS: SOCIAL NEEDS AND SERVICES. (3 credits). The physical, psychological and social development of youth and young adults and the relationship of such development to demands of the social environment. Emphasis is on the effects of societal change on family roles, interpersonal relationships, educational and work achievement, youth's community role, social services for youth and young adults.
Professor Dalfen

407-454A SOCIAL SERVICE IN THE HEALTH FIELD. (3 credits). Recommended for students expecting to proceed to further studies in Health Services. An examination of the relationship between illness and social conditions. Social planning, practice and research aspects of health care and the delivery of health services. An evaluation of current and developing professional roles of social workers in health teams, with particular emphasis on social rehabilitation of the physically and mentally ill.
Staff

407-456D FIELD PRACTICE. (6 credits, two days per week September to mid-April; full-time practice during May). Supervised educational experiences in social work practice designed to integrate practice with theoretical knowledge. Through field placements in university-affiliated teaching centres, students will work with individuals, families, groups and communities, receiving both individual and group instruction. Prerequisite — 407-240 and 241.
Field Instructional Staff

407-457B LEGAL PROBLEMS OF THE POOR. (3 credits). A lecture-and-seminar course on law and social welfare, with the emphasis largely on the social-legal problems and rights of the poor, and methods of legal protection and redress available to them. Aspects of Canadian civil law and criminal law will be reviewed. Emphasis will be placed on the Québec scene, with landlord-tenant, contract and debtor, matrimonial regimes, parental responsibility and social insurance. The total Canadian perspective will be considered in areas of divorce, unemployment insurance, arrest, and bail.
Miriam Grassby

407-458A/B SOCIAL POLICY AND ADMINISTRATION. (3 credits). An analysis of the administrative structures and dynamics of social service organizations, with special attention to Québec policies and to the role of social workers. Examples are drawn from current field experiences of students. Prerequisite — 407-352A.
Professors Woodsworth and Shragge

407-461A SEMINAR IN CORRECTIONS. (3 credits). An examination of criminal behaviour in Canada and the U.S., and the correctional system designed to deal with such behaviour. Attention will be paid to the systems that process the offender (judiciary, and penal systems and the probation and parole services) with particular emphasis on the effects of these systems on the offender.
Professor Cooper

407-462B POVERTY, INEQUALITY AND CAPITALISM. (3 credits). An examination of the notion of social welfare from the perspective of poverty and inequality. Attention is given to socio-economic dynamics of inequality in a capitalist state rather than programs designed to combat poverty. Specific topics include inequality in relation to income distributions, income redistribution, wealth, incentives, economic growth, inflation, consumption, rich and poor nations. Pre-requisite — 407-352.
Professor Shragge

407-463B SOCIAL WORK PRACTICE WITH THE AGED. (3 credits). A seminar dealing with social services for the aged. Topics will include: dilemmas of retirement, institutionalizing of the elderly, community care, separation and loss, role of the social worker with the elderly and their families.
Professor MacLean

407-464A INDUSTRIAL SOCIAL WORK. (3 credits). A seminar on social work practice in industrial settings. Analysis of conceptions of work; work-related, personal and family problems, relationships between social agencies and the world of work, social service programs offered under industrial and trade union auspices.
Professor McGilly

407-465A SEMINAR IN SCHOOL SOCIAL SERVICES. (3 credits). The seminar will examine the interrelationships of the pupil's social environment in the culture of the school, the problems of teachers and principal and their resultant impact on the pupil's academic achievement. Existing models of social work intervention in schools will be discussed with special emphasis given to "Interprofessional Collaboration".
Professor Dalfen

407-467B SOCIAL WORK AND PUBLIC ISSUES. (3 credits). An examination of the process by which social problems are translated into public issues, the factors influencing various interest groups in taking positions on such issues and the reasons why some succeed more than others. Particular attention will be paid to issues raised at the municipal and provincial level, which have relevance for social work.
Staff

407-471B INDIVIDUAL SOCIAL WORK RESEARCH PROJECTS. (3 credits). This course will provide an opportunity for interested students to conduct small-scale practical research projects, either individually or in small groups, with tutorial assistance from staff members and without the formal reporting requirements of the M.S.W. research project. Prerequisite — 407-270.
Professor Duder

407-472A SEMINAR ON FAMILY ASSESSMENT. (3 credits). An advanced seminar designed to integrate knowledge of human personality in social process. Emphasis will be upon the appraisal and assessment of patterns of reciprocity among members of disturbed and disorganized families. Preference will be given to students who have some contact with families.
Professor Braverman

407-473A/B CASEWORK WITH INDIVIDUALS AND FAMILIES. (3 credits). Theory and practice of work with individuals and families under stress. Topics will include: categories of hazardous events; affective, behavioural and role disorganization; phases in the crisis cycle; techniques of crisis intervention and abatement.
Professor Katz

407-474B METHODS OF COMMUNITY DEVELOPMENT, SOCIAL ACTION. (3 credits). The aim of this course is to develop an understanding of the organizing process and to enrich the student's repertoire of direct organizing skills. Emphasis is on organizational entities, community power and conflict, organizing strategies and their application,in the context of current issues in urban community development.
Professor Torczyner

407-475A COMMUNITY ORGANIZATION. (3 credits). This seminar provides students with an understanding of planning theory and practice as it relates to community organizing and social service delivery. It focuses on 3 themes: 1) theories of planning and their applicability to social work practice, 2) the planning process (steps and process), 3) an examination of major planning issues in service delivery.
Professor Torczyner

407-476A SOCIAL WORK PRACTICE WITH GROUPS I. (3 credits). Theory and practice of work with groups. Focus will be on group development theory and the skills of the worker to strengthen group potential for mutual aid. Children and adult groups in a range of settings will be examined.
Professors Rotholz and Hopmeyer

407-477B SOCIAL WORK PRACTICE WITH GROUPS II. (3 credits). An advanced course in practice, with emphasis on comparative theories of groups.
Professors Rotholz and Hopmeyer

407-480L/D FIELD INSTRUCTION. (6 credits). Supervised educational experience in social sork practice integrating practice with theoretical knowledge characteristic of the selected field. Individual and group instruction. Pre-requisite — 407-456D.
Field Instructional Staff

407-481A SEMINAR ON SOCIAL WORK PRACTICE I. (3 credits). Principles of Social Work Practice in working with individuals, families, small groups and communities. Methods of practice will be analyzed from a range of settings, drawing upon student field experience. For Special B.S.W. students only.
Professors Cooper and Steele

407-482B SEMINAR ON SOCIAL WORK PRACTICE II. (3 credits). A continuation of 481A. For Special B.S.W. students only.
Professors Werk, Magill and Urtnowski

407-483A CROSS-CULTURAL PERSPECTIVES IN SOCIAL WORK PRACTICE. (3 credits). This seminar is designed to prepare students for working with various ethnic and racial minority clientele more knowledgeably and comfortably. Content will include: the impact of forman and informal social policies and institutions on the welfare of minorities, and the relationship between cultural norms and social work practice. Experiential learning will provide opportunities for increased self-awareness.
Professor Christensen

407-484B SEMINAR IN COMMUNITY ORGANIZATION. (3 credits). This seminar examines issues and dilemmas which students encounter in community organization practice. The workshops provide a forum to analyse neighbourhood structures, organizations and systems which affect community lives. Particular attention will be directed toward the development of citizens' groups and coalitions, the analysis of power structures and planning with community associations for change.
Professor Torczyner

407-485A/B TUTORIAL INSOCIAL WORK PRACTICE. (3 credits). An individual or small group tutorial in which students will work independently in conjunction with the instructor. The student will undertake a project related to the area of specialization. To be taken only with the consent of the Director.
Staff

407-486A/B TUTORIAL IN SOCIAL POLICY. (3 credits). An individual or small group tutorial in which students will work independently in conjunction with the instructor. The student will undertake a project related to the area of specialization. To be taken only with the consent of the Director.
Staff

407-487B FAMILY THERAPY SEMINAR. (3 credits). This course will focus mainly on interventive techniques. Approaches to families with special problems such as one parent families, immigrant families, multiproblem families and families with a psychosomatically ill member will be discussed with a clinical focus. The aim is (1) for students to gain an understanding of how family members are shaped by, and help shape their environment and (2) to improve students' treatment skills in dealing with a wide spectrum of families. Prerequisite 472A.
Professor Braverman

407-488A SOCIAL WORK PRACTICE WITH CHILDREN. (3 credits). An overview of normal personality development and some of the common problems of childhood encountered in social work practice, with an introduction to practice theory and some specialized skills. Some of the problem areas to be considered are: mother-infant bonding, privation, deprivation, separation difficulties, child abuse, the chronically ill child, the physically disabled child, inhibition, school probia, truancy, oppositional behavior, hyperactivity, etc. Preference will be given to students who have contact with children.
Professor Speirs

407-489B HUMAN SEXUALITY IN SOCIAL WORK PRACTICE. (3 credits). A seminar designed to provide students with an opportunity to develop beginning practice competence in dealing with problems related to human sexuality (abortion, family planning, homosexuality, etc.). Emphasis will be placed on helping students to incorporate a range of professional interventions and skills byuse of case material, taped sessions and role-play. Students will be expected to share practice experiences. Open to U3 and Special B.S.W. students.
Professor Christensen

407-490A MAJOR LIFE EVENTS. (3 credits). An overview of the interaction between the major events of an individual's life and significant situationsin which that individual may be. A phenomenological approach will permit a focus on the importance of the major events throughout the life span from the viewpoint of those who have experienced them. A review of significant research on life stress events and their implications for social work practice will be given.
Professor MacLean

407-497A/L CLINICAL PRACTICE SEMINAR. (3 credits). A seminar designed to provide students with an opportunity to develop beginning practice competence with various population groups, e.g. physically and mentally handicapped, adolescents, multi-problem families, etc.
Staff

407-498B CLINICAL PRACTICE SEMINAR. (3 credits). A continuation of 497A/L.
Staff

407-499A/L WOMEN'S ISSUES IN SOCIAL WORK PRACTICE. (3 credits). Focus on issues related to women as providers and consumers of social services. Theoretical frameworks for analysis of social policy and of strategies for policy change. Through the study of women's experience in the world of family and work, students will be expected to formulate guide-lines for providing social services to women.
Professor Urtnowski

5.2 COURSES OPEN TO UNDERGRADUATE AND GRADUATE STUDENTS

407-528A ACTIVITY GROUP METHODS. (3 credits). In this class, play and socializing activities are studied: a) for their value as enjoyable and growth enhancing experiences, b) theoretically and practically as they apply to work with various types, sizes and styles of client groups, c) as a method of developing professional skills, relevant to facilitating personal and interpersonal growth in work with groups, d) as a means of helping students develop anawareness of their own effectiveness as participating group members or leaders. Not offered 82-83.

407-530A SEMINAR ON SOCIAL PERSPECTIVES ON AGING I. (3 credits). Instructors and students from different disciplines (sociology, political science, economics, management, social work and others) will discuss issues of demography, age status and roles, attitudes, family and intergenerational relations, retirement, leisure, etc. Policies, provisions and services to seniors will be explored and evaluated. Selected senior citizens will participate in this Seminar.
Professors Marcus and MacLean

407-531B SEMINAR ON SOCIAL PERSPECTIVES ON AGING II. (3 credits). Instructors and students from disciplines such as biology, psychology, geriatrics, education, religious studies, social work and others will focus on certain aspects of aging, i.e. physiological, psychological, cultural, health and disease in old age, death and dying, etc. The provision of services and their impact on the recipients will be evaluated. Senior citizens will participate in the Seminar.
Professors Marcus and MacLean

407-532A/B SEMINAR IN INTERNATIONAL SOCIAL WELFARE. (3 credits). Discussion based upon intensive study and reports on problems in selected countries. Particular emphasis on identifying major social problems, understanding the social forces bearing on those problems and considering appropriate professional approaches to aid in their solution.
Professor Woodsworth

407-533B SOCIAL WORK PRACTICE IN FORMAL ORGANIZATIONS. (3 credits). An examination of the ways in which social workers as professionals deal with their organizational environment. Theory and research on formal organizations, case material and the students' own experience will form the basis for discussion. Organizational "games" illustrative of the strategies used in such situations will be constructed and played out. Prerequisite 407-452A.
Staff

407-534B SOCIAL WORK PRACTICE WITH INVOLUNTARY CLIENTS. (3 credits). An examination of the issues and practice problems encountered by practitioners working with involuntary clients in settings such as courts, youth protection agencies and total institutions. Topics will include reaction of the client and worker to the "involuntary" situation, the ethics and efficacy of "coerced treatment" and practice interventions with involuntary clients. Students will be expected to draw on their own experience with these issues.
Professor Cooper

5.3 LAW COURSE OPEN TO SOCIAL WORK STUDENTS

The following course, offered in the Faculty of Law, is open to third year social work students.

490-003A LAW AND PSYCHIATRY. (B.C.L. & LL.B.) (3 hours, first term). An examination of the roles of lawyers and psychiatrists in the handling of the mentally ill individual within the legal process. Detailed consideration will be given to the civil commitment process, the criminal commitment process, the insanity and "automatism" defences, the psychiatrist as expert witness, mental illness as a problem in such substantive areas as Wills and Estates, Family Law, Property Law. A number of sessions will be conducted jointly with members of the psychiatric profession.
Professor Sklar

5.4 M.S.W. COURSES

407-602A SOCIAL VALUES AND SOCIAL POLICY. (3 credits). Analysis of value assumptions underlying social welfare policies. Identification of major themes inpolitical and economic thought that contributed to Canadian concepts of welfare. Students are required to contribute actively in seminar discussions.
Professor Woodsworth

407-603B THE POLITICS OF SOCIAL WELFARE. (3 credits). Concepts and methods of political analysis of welfare problems and policies (interest group activities, political influence, elites), and features of the political environment in which welfare programs are developed and administered (ideologies, political institutions, constitutional aspects).
Professor McGilly

407-605B THE ECONOMICS OF SOCIAL WELFARE. (3 credits). Social problems generated by the mixed-capitalist system, the economic approach to social policy, and the limitations upon the range of economic solutionsto social problems. Illustrations of the basic research methods used by economists, as applied to such problems as unemployment and poverty.
Professor Heppner

407-606B CHILDREN'S NEEDS, PROBLEMS, RESOURCES. (3 credits). A study in depth of the needs of children and the related problems, with consideration of relevant treatment modalities and community resources for problem solution.
Professor Reichertz

407-607B SOCIAL SERVICES IN THE SCHOOL SYSTEM. (3 credits). An examination of public schools as community institutions with emphasis on possible roles of the social workers in relation to pupils, parents, teachers, and administration.
Professor Dalfen

407-608B SEMINAR IN CORRECTIONS. (3 credits). An examination of theories of criminal behaviour and their implications for social work practice. Analysis of selected correctional programs, their theoretical bases and their effectiveness in modifying criminal behaviour.
Professor Cooper

407-609A SEMINAR ON HEALTH ISSUES. A critical examination of issues relating to health and disease. Focus will be on health concepts and health models with an emphasis on prevention and adaptation. Determinants of health and stress at different life stages. Comparative approaches to treatment and service delivery will be discussed.
Professor Marcus

407-613A COMPARATIVE APPROACHES TO PSYCHOPATHOLOGY. (3 credits). An examination of attitudes and responses to emotional disturbances and breakdown of individuals in contemporary society. A discussion of the changing patterns of psychiatric services and the use of a variety of health professionals and community resources. Illustrations of treatment approaches whenever feasible.
Dr. D. Kussin

407-614A ADMINISTRATION. (3 credits). An examination of problems and issues in social service administration in the light of classic and current organization theory, focussing principally upon the development of the managerial role.
Professor McGilly

407-615A CRITICAL STUDY OF RESEARCH IN SOCIAL WORK. (3 credits). Analysis and evaluation of published social work research, and research of particular relevance to social work, from other disciplines.
Professor Shiner

407-620A/B/D THE FIELD OF PRACTICE SEMINAR. (3 credits). The seminar will provide an opportunity for integration of knowledge, theory and skills drawn from the practicum and other courses, and for close examination of special characteristics of the field. Organization of the seminar will vary with the field of practice. All students are required to participate in the seminar in one field.
Staff

407-621A INDIVIDUAL CASEWORK. (3 credits). A seminar incorporating case examples drawn from student practice. Focus will be on concepts of psychodynamic theory, understanding individual functioning - and dysfunctioning. Emphasis will be on issues of psycho-social assessment, treatment processes and analysis of the therapeutic relationship.
Jack Raby

407-622B FAMILY ASSESSMENT AND TREATMENT. (3 credits). A seminar on techniques of family diagnosis and therapy; comparative models of family treatment, systems perspectives on family interaction, family rules and myths. Emphasis will be on the role and behaviour of the family therapist.
Professor Reichertz

407-623A MARITAL COUNSELLING. (3 credits). Theories on sources of marital distress with communication/interactional focus. Conflict perspectives on marriage, techniques for counselling couples seeking reconciliation. Separation/divorce counselling.
Professor Katz

407-624B COMMUNITY AND SOCIAL ACTION. (3 credits). The aim of this course is to develop an understanding of the organizing process at the grass-roots level. Emphasis is placed upon communitypower and conflict, the development of organizing strategies, and the application of such strategies in groups and movements dedicated to social change.
Professor Torczyner

407-625A PLANNING THEORY AND SERVICE DELIVERY. (3 credits). Planning theory and practice as they relate to community organizing and social service delivery. It focuses on 3 themes: 1) theories of planning and their applicability to social work practice, 2) the planning process (steps and process), 3) an examination of major planning issues in service delivery.
Professor Torczyner

407-627A/B SOCIAL WORK PRACTICE WITH GROUPS. (3 credits). An advanced course inpractice with emphasis on comparative theories of groups.
Professor Reichertz

407-631B SEMINAR ON METHODS OF SUPERVISION. (3 credits). The seminar is designed for students who, on graduation, will assume immediate responsibility in a supervisory role. The seminar will deal with theories and models related to supervision of personnel engaged in different levels of practice and a variety of services with people.
Professor Magill

407-633B EVALUATION OF SOCIAL WELFARE PROGRAMS. (3 credits). Program evaluation is examined in terms of the problems giving rise to the program, the objectives of the programs as specified outcomes, the program components, measurement of program variables, evaluation of outcomes, and the audience to whom the evaluation is relevant. Action research requirements are to be distinguished from evaluation requirements. Obstacles to program evaluation are noted.
Professors Shiner and McGilly

407-635B ADVANCED SEMINAR IN SOCIAL WORK PRACTICE WITH CHILDREN. (3 credits). Seminar on direct work with children and adolescents. Topics include: issues in personality assessment; research related to child development; techniques of direct practice with children. Students are expected to provide current practice examples for analysis and discussion.
Professor Speirs

407-636A/B TUTORIAL IN SOCIAL WORK. (3 credits). An individual or small group tutorial in which students will work independently in conjunction with the instructor. The student will undertake a major project related to the area of specialization.

407-637A/B HOUSING POLICY. (3 credits). An examination of the dynamics of private and public housing in Canada and policies which have been designed to influence the provision of housing. Particular attention will be given to Canadian and Québec policies and international comparisons will be made, notably, England, France, Sweden, United States. Specific topics include: housing demand and supply, taxation and subsidies, public housing, cooperative housing, rehabilitation, tenant and landlord relationships.

407-638A/B ANALYSIS OF INCOME MAINTENANCE PROGRAMS. (3 credits). Analysis of income maintenance programs as expressions of social policy. Emphasis will be placed on alternative theoretical perspectives for understanding the

purposes and impacts of public policy. Students will offer proposals for policy change using the seminar as a work group.
Professor Woodsworth

407-639A/B SOCIAL WORK IN SOCIOLOGICAL PERSPECTIVE. (3 credits). The main defining features of social work and their interconnections are to be studied in the context of the sociology of occupations. Through comparison of several fields of work, this course will seek to identify some of the characteristics of professionalization of occupations with particular attention to the helping professions.
Staff

407-640A INTERGENERATIONAL RELATIONS. (3 credits). A seminar on the relationships between the generations (children, adolescents, middle aged and elderly), with a focus on the position of the elderly. Formal and informal support systems to individuals and families will be examined. Each student will select one stage of the life cycle for an indepth study.
Professor Marcus

407-641B SOCIAL POLICY ANALYSIS. (3 credits). A seminar that reviews available theoretical approaches to the analysis of social policy, examines their ideological and methodological characteristics, and applies them to selected substantive welfare policies.
Professor Woodsworth

407-642A/B TUTORIAL IN SOCIAL WELFARE. (3 credits). This tutorial permits students to pursue studies in special areas not covered in other courses offered, or to study in greater depth subjects covered in earlier work. Emphasis is on the content, operation and analysis of social welfare programs.
Staff

407-643B QUANTITATIVE METHODS IN SOCIAL WORK RESEARCH. (3 credits). A comparative review of the research methods and data sources that are used in social work research and policy analysis, with consideration of the statistical methods and computer programs that are appropriate for each. Topics will include experimental and correlation designs, time series analysis, and survey research.
Professor Duder

407-644A/B CLINICAL PRACTICE: AN EMPIRICAL APPROACH. (3 credits). An evaluation of clinical practice in social work from an empirical perspective. Individual, family and group treatment interventions are analyzed through single-subject design procedures. Students apply empirical clinical practice in the field. A three-credit course extending over two terms.
Professor Shiner

407-645B CLINICAL PRACTICE SEMINAR. (3 credits). A seminar on social work theories of assessment and treatment. Topics will include: characteristics of the different helping phases, special problems in treatment. Attention will be focussed in this seminar on the social origins of human dilemmas.
Professor Steele

407-646A/B INDUSTRIAL SOCIAL WELFARE. (3 credits). This course will cover: 1) statutory provisions governing work relationships and working conditions; 2) statutory benefits provided to workers; 3) non-statutory benefits provided through employers. These will be studied as factors in the work milieu and as issues in social policy.
Professor McGilly

407-647B ISSUES IN SOCIAL SERVICES ADMINISTRATION. (3 credits). A study of the distinctive characteristics of the relations of social service administrators with clientele, personnel, community and government; problems in the implementation of, and accountability for, policies and programs; problems in finance and budgetting.
Professor McGilly

407-648A/B SPECIAL TOPICS IN SOCIAL WORK. (3 credits). This course will be offered from time to time to deal with topics, of current interest in social work, that are not covered in other courses. Specific content may differ from year to year.
Staff

407-649A/B SPECIAL TOPICS IN SOCIAL WELFARE. (3 credits). This course will be offered from time to time to deal with topics, of current interest in social welfare, that are not covered in other courses. Specific content may differ from year to year.
Staff

407-650A/B/L FIELD WORK PRACTICUM. (3 credits). Supervised educational experience in social work practice integrating practice with theoretical knowledge characteristic of the specialized field. Individual and group instruction. Involves approximately 100 hours of work in a field setting.
Staff

407-651A/B/L FIELD WORK PRACTICUM. (3 credits). See 650 above.
Staff

407-660A/B/D/L FIELD WORK PRACTICUM. (6 credits). See 650 above. Involves approximately 200 hours of work in a field setting.
Staff

407-690H/E/L RESEARCH PROJECT. (12 credits). The major M.S.W. independent study project. The selection of the study problem, systematic approaches to its study, data collection, analysis, interpretation of results and the written report. Individual advising with supplementary group conferences and consultation on project proposals and methodologies.
Staff

5.5 DIPLOMA IN ADVANCED PRACTICE COURSES

407-700 SEMINAR IN SUPERVISION. (Half course). A discussion of basic concepts implicit in supervision as an administrative and teaching process. Open to students who are having or who have had experience as supervisors.

407-701D COMPREHENSIVE EXAMINATION. Requires candidates for the Diploma to demonstrate ability to reorganize and integrate knowledge and perspectives over the total curriculum. Will include at least one section in the field of specialization, and one section in another area of the candidate's choice.

407-702B BEHAVIOURAL SCIENCE THEORY AND ITS RELATION TO SOCIAL WORK PRACTICE. (Half course). Some of the major concepts of learning, role, field and communication theory will be systematically examined. Course content will include a critique of selected research in each of the above areas. Major consideration will be given to the relevance and application of behavioural theory to social work practice.

407-703 PRINCIPLES OF SMALL GROUP INTERACTION. (Half course). A survey of the theory, principles, and current research in small group dynamics, with emphasis on implications for the practice of social work.

407-704 CRITICAL STUDY OF RESEARCH IN SOCIAL WORK. (Half course). Analysis and evaluation of social work research, and research of particular relevance to social work from o ther disciplines.
Professor Shiner

407-705 INDIVIDUAL RESEARCH STUDIES IN SOCIAL WORK. (Half course). Tutorials on selected research problems.
Professor Shiner

407-706 ADVANCED PRACTICE SEMINAR IN MARRIAGE AND FAMILY COUNSELLING. (Full course). A course emphasizing family diagnosis during first term. Theoretical presentations related to student's case material. Emphasis on: Evaluation of marital conflict, differential treatment methods, the role of the psychiatric consultant, the appropriate use of short-term counselling, individual andfamily interviews, group counselling with married and engaged couples.

407-707 ADVANCED PRACTICE SEMINAR IN REHABILITATION. (Full course). In the first term, emphasis is placed on the biopsychological and socio-cultural aspects of health and disease. During the second term, particular attention will be given to the application of theory from various disciplines to the prevention, treatment, and rehabilitation aspects of chronic and disabling illness. Consideration also will be given to the impact of disability on individuals, families and communities and to the actual and potential role of social work in this field.
Professor Marcus

407-708 SEMINAR IN ADVANCED RESEARCH METHODOLOGY. (Full course). Study of contemporary theoretical and methodological approaches to social work research with special focus on design, measurement and analysis. A research project on a social work practice problem is central to the course.
Professor Shiner

407-709 FIELD PRACTICE. (Full course). Minimum of 300 hours of supervised practice in marriage and family counselling, rehabilitation or corrections, research, or welfare administration.
Staff

407-710 ADVANCED READINGS IN SOCIAL SCIENCE. (half course). Under special circumstances, and on recommendation of the student's adviser, arrangement will be made for a special tutorial course, involving readings and assignments.
Staff

407-712 PRINCIPLES OF REHABILITATION. (Half course). This course will consist of a critical discussion and analysis of the concept of rehabilitation, from a number of theoretical standpoints. Particular attention will be paid to theories of adult socialization and to the organization structure of socializing agencies. The subject matter will provide a general framework from which to move into the courses specific either to rehabilitation or corrections.
Staff

407-713 CONTEMPORARY SOCIAL PROBLEMS AND SOCIAL POLICY. (Half course). A review of social policy as revealed in the social welfare structure in Canada. Critical appraisal of such policy in relation to selected social problems, with particular emphasis on criteria of adequacy and the social, economic and political factors involved in policy formation.
Professor Woodsworth

407-714 ADVANCED PRACTICE SEMINAR IN CORRECTIONS. (Full course). The first term consists of an intensive analysis of selected theories relating to crime and delinquency and an attempt to derive from these specific treatment programs applicable to social work intervention. The second term involves a critical analysis of selected correctional programs, particularly those in which social work plays a part in terms both of theoretical underpinnings and their effectiveness.

407-715 ADVANCED PRACTICE SEMINAR IN WELFARE ADMINISTRATION. (Full course). Students will apply, concepts derived from various contributing disciplines, and from social work practice, to particular problems in welfare administration. Topics will include problems of formal organizations with varying orientations, of professional workers in organizations, of organizational adaptation to complex environments, of representation of client and community interests in administration, of communications where interaction among participants are highly differentiated, of organizational goalsetting, performance evaluation, and resource allocation. Various theoretical models of organization behaviour will be presented.
Professors McGilly and Woodsworth

407-716 COMPARATIVE APPROACHES TO PERSONALITY. (Half course). A systematic examination of selected analytic and non-analytic approaches to personality. Attention will be devoted to the major concepts and basic assumptions of Freud, Rank, Adler, Horney, Fromm, Sullivan, and Rogers. Emphasis will be placed upon the implications of the various personality theories for social work practice.
Professor Katz

ELECTIVES

In certain instances, students may, where eligible, register for appropriate graduate courses offered in other departments of the University.

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If undeliverable, return to:

McGill University
The Registrar's Office
845 Sherbrooke Street West
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Telephone: (514) 392-6740

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Legal Deposit I 82

REGISTRATION WILL BE ON A FIRST COME, FIRST SERVED BASIS.

IT IS THE RESPONSIBILITY OF EACH STUDENT TO READ, UNDERSTAND, AND ABIDE BY THE RULES AND PROCEDURES PRINTED IN THIS ANNOUNCEMENT.

SUMMER SESSION OFFICE HOURS:

Monday through Thursday	9:00 – 16:30
Friday	Office closed

LANGUAGE POLICY

The language of instruction at McGill is normally English. Students may if they wish write term papers and answers to examination questions in French (except in the case of certain language and literature courses), but competence in English is essential. English-speaking Québec students are encouraged to develop proficiency in French.

L'INSCRIPTION S'EFFECTUERA DANS L'ORDRE D'ARRIVÉES DES ÉTUDIANTS.

IL APPARTIENT À L'ÉTUDIANT D'AVOIR LU ET COMPRIS LES RÈGLEMENTS ET MODALITÉS QUE RENFERME LE PRÉSENT ANNUAIRE ET DE S'Y CONFORMER.

HEURES DE BUREAU – SESSION D'ÉTÉ:

Lundi – jeudi	9h – 16h30
Vendredi	Bureau fermé

POLITIQUE LINGUISTIQUE

À McGill, l'enseignement est normalement dispensé en langue anglaise. Les étudiants qui le désirent peuvent rédiger en français leurs travaux et leurs examens (sauf dans le cas de certains cours de langues et de littérature), mais la connaissance de l'anglais est indispensable.

CALENDAR OF DATES
1982 SUMMER SESSION

Please Note: A suffix of 'C' is used for courses starting in May
A suffix of 'L' is used for courses starting in June
A suffix of 'T' is used for courses starting in July and August

Date	Course	Deadline
Early-April	All courses	– Registration begins
MAY		
Monday, May 3	C (3 cr.) & C (6 cr.) & Mgmt., Monday Wednesday	– Classes begin – Registration Day
Tuesday, May 4	Mgmt., Tuesday Thursday	– Classes begin
Thursday, May 6	C (3 cr.)	*– Late registration deadline – Course change deadline – Refund deadline
Wednesday, May 12	C (3 cr.)	– "W" Withdrawal deadline No refunds
	C (6 cr.) & Mgmt.	*– Late registration deadline – Course change deadline – Refund deadline
Wednesday, May 19	C (6 cr.) & Mgmt.	– "W" Withdrawal deadline No refunds
Monday, May 24		– Victoria Day, holiday, Offices closed, no lectures
Friday, May 28	C (3 cr.)	– Classes end
Monday, May 31	C (3 cr.)	– Examination day
JUNE		
Tuesday, June 1	L (3 cr.) & L (6 cr.)	– Classes begin – Registration Day
Friday, June 4	L (3 cr.)	*– Late registration deadline – Course change deadline – Refund deadline
Thursday, June 10	L (3 cr.)	– "W" Withdrawal deadline No refunds
	L (6 cr.)	*– Late registration deadline – Course change deadline – Refund deadline
Thursday, June 17	L (6 cr.)	– "W" Withdrawal deadline
Monday, June 21	Mgmt., Monday Wednesday	– Examination day
Tuesday, June 22	Mgmt., Tuesday Thursday	– Examination day
Thursday, June 24		– La fête nationale du Québec Holiday, Offices closed, No lectures
Friday, June 25	C (6 cr.)	– Classes end
Monday, June 28	C (6 cr.)	– Examination day
	L (3 cr.)	– Classes end
Tuesday, June 29	L (3 cr.)	– Examination day

SUMMER SESSION

Date	Course	Deadline
JULY		
Thursday, July 1		– Dominion Day, holiday, Offices closed, No lectures
Monday, July 5	T (3 cr.) & T (6 cr.) & Mgmt., Monday Wednesday	– Classes begin – Registration day
Tuesday, July 6	Mgmt., Tuesday Thursday	– Classes begin
Thursday, July 8	T (3 cr.)	*– Late registration deadline – Course change deadline – Refund deadline
Wednesday, July 14	T (3 cr.)	– "W" Withdrawal deadline No refunds
	T (6 cr.) & Mgmt.	*– Late registration deadline – Course change deadline – Refund deadline
Wednesday, July 21	T (6 cr.) & Mgmt.	– "W" Withdrawal deadline No refunds
Monday, July 26	L (6 cr.)	– Classes end
Wednesday, July 28	L (6 cr.)	– Examination day
Thursday, July 29	T (3 cr.)	– Classes end
Friday, July 30	T (3 cr.)	– Examination day
AUGUST		
Monday, August 2	T (3 cr.) Aug.	– Classes begin – Registration day
Thursday, August 5	T (3 cr.) Aug.	*– Late registration deadline – Course change deadline – Refund deadline
Wednesday, August 11	T (3 cr.) Aug.	– "W" Withdrawal deadline No refunds
Wednesday, August 18	Mgmt., Monday Wednesday	– Examination day
Thursday, August 19	Mgmt., Tuesday Thursday	– Examination day
Wednesday, August 25	T (6 cr.)	– Classes end
Thursday, August 26	T (6 cr.) & T (3 cr.) Aug.	– Examination day – Classes end
Friday, August 27	T (3 cr.) Aug.	– Examination day
Monday, September 6		– Labour Day, holiday, Offices closed

* A late registration fee of $15.00 will be charged to students registering late in Summer Session for a course from the day after the course starts up to the late registration deadline for the course.

(Graduate Education Students Please Consult the Graduate Education Section of This Announcement for Specific Dates.)

Unless otherwise posted the Summer Session Office will be closed on Fridays between June 24th and Labour Day.

The attention of Arts and Science students is drawn to the fact that the dates of supplemental examinations for courses given during the 1981-82 Fall and Winter Terms overlap with some Summer Session courses. Students who will be taking an August supplemental examination should consult the examination timetable before registering in Summer Session courses taught during the month of August.

1 STAFF

1.1 ADMINISTRATIVE OFFICERS

UNIVERSITY

DAVID L. JOHNSTON, A.B. (Harv.), LL.B. (Cantab. & Queen's), LL.D. (L.S.U.C.)
Principal and Vice-Chancellor

S.O. FREEDMAN, B.Sc., M.D., C.M.(McG.), F.R.C.P.(C), F.A.C.P., F.R.S.C.
Vice-Principal (Academic)

JOHN ARMOUR, AACCA **Vice-Principal (Administration and Finance)**

E.J. STANSBURY, M.A., Ph.D. (Tor.)
Vice-Principal (Planning and Academic Services)

GORDON A. MACLACHLAN, B.Sc., M.A.(Sask.), Ph.D.(Man.) **Vice-Principal (Research)**

L.E. LLOYD, B.Sc. (Agr.), M.Sc., Ph.D. (McG.)
Vice-Principal (Macdonald Campus)

MICHAEL HERSCHORN, M.A., Ph.D. (McG.)
Dean of Students

COLIN M. McDOUGALL, D.S.O., B.A. (McG.)
Secretary-General

JEAN-PAUL SCHULLER B.A. (Ott.) **Registrar**

PEGGY SHEPPARD, B.Ed. (McG.), B.A. (Sir. G. Wms.) **Admissions Office, Director**

ALTA ABRAMOWITZ, B.A., M.Ed. (McG.)
Information and Liaison Office, Director

MARIANNE SCOTT, B.A., B.L.S.
University Libraries, Director

MARGOT KYLE, Administrative Assistant
Summer Session

TEACHING STAFF – ACADEMIC

Visiting

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EDWARD M. BRUSSELL, B.A.(Hobart), M.A.(DePauw), Ph.D.(New Sch. Soc. Res.) Associate Professor, Concordia University
Psychology

FRANK CAUCCI, Ph.D.(Paris), Assistant Professor **French Language and Literature**

JORGE NEF, Ph.D.(Calif. State), Professor, Guelph University **Political Science**

JOHN PARKHILL, M.A.(Queen's), B.L.S.(McG.), A.M.(Harv.), Former Director of Metro Toronto Public Libraries **Library Science**

SALLY J. PATTON, **Education**

ETHEL PEACOCK, B.A.(Mt. All.), M.A.(McG.)
Education

J.A. SCHWARCZ, B.Sc., Ph.D.(McG.), Assistant Professor, Dawson College **Chemistry**

N. SEYMOUR, B.Sc., M.Sc.(Man.), Ph.D.(McG.), Associate Professor, St. Francois Xavier University **Agriculture**

CATHERINE SHAW, B.A., M.A.(U.B.C.), Ph.D.(Tex.), Associate Professor **English**

DAVID R. YESNER, B.A.(Cornell), M.A., Ph.D.(Conn.), Assistant Professor **Anthropology**

TEACHING STAFF – ACADEMIC

McGill

RHONDA AMSEL, B.Sc., M.Sc.(McG.), Lecturer
Psychology

BRUCE ANDERSON, B.Arch.(McG.), M.Arch. (Harv.), Professor **Architecture**

W. ANDERSON, B.Eng., Ph.D.(McG.), Associate Professor **Mathematics**

KENNETH ATLAS, B.C.L., LL.B.(McG.), Lecturer
English

WILLIAM BOOTH, B.A.(McG.), Lecturer **English**

M. BORTS, B.A.(Sir G. Wms.), M.B.A.(McG.), Lecturer **Management**

ISSA J. BOULLATA, B.A., Ph.D.(Lond.), Professor
Religious Studies

HERVE BOURDEAU DE FONTENAY, M.A.(McG.), Lecturer **French Language and Literature**

ROBERT J. BRACEWELL, B.Sc., M.A.(McM.), Ph.D.(Tor.), Assistant Professor **Education**

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C. CALANTONE, B.A.(N.J.), M.B.A.(McG.), Lecturer **Management**

JENNIE CHANG-ORLOV, B.A.(Taiwan), M.A.(Harv.), Lecturer
East Asian Languages and Literatures

J.M. CHARRIER, Dipl. Ing., E.N.S.A.M. (Paris), M.S., Ph.D.(Akron), Associate Professor
Engineering

F. CHOI, B.Eng.(McG.), M.Eng.(Sir G. Wms.), M.B.A.(C'dia.), Lecturer **Management**

I. CONNELL, M.Sc.(Man.), Ph.D.(McG.), Professor
Mathematics

N.E. COOKE, B.A.Sc., M.A.Sc.(U.B.C.), Sc.D.(M.I.T.), Auxiliary Professor **Engineering**

RICHARD COOPER, B.A., M.A., S.T.M.(McG.), Teaching Assistant **Religious Studies**

MONIQUE-CATHERINE CORMIER, M.A.(Montr.), Lecturer **French Language and Literature**

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JACQUES DALLAIRE, B.Sc., M.Sc.(Ott.), Ph.D.(Alta.), Assistant Professor **Education**

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F. DUCK, B.Com.(Sir. G. Wms.), M.B.A.(McG.), Lecturer **Management**

SYDNEY DUDER, B.A., M.S.W., Dipl. Ad. Soc. Wk. Pr.(McG.), Associate Professor **Social Work**

P.G. FARRELL, B.Sc., Ph.D.(Exeter), Professor **Chemistry**

MICHAEL FEUERSTEIN, A.B.(Boston), M.S., Ph.D.(Georgia), Assistant Professor **Psychology**

MARY ANN FIELDES, Ph.D.(McG.), Research Associate **Biology**

CARL H. FREDERIKSEN, B.A.(Harv.), M.A., Ph.D.(Ill.), Associate Professor **Education**

W.C. GALLEY, B.Sc.(McG.), Ph.D.(Cal. Tech.), Associate Professor **Chemistry**

WARD GEDDES, B.A.(U.B.C.), M.A., Ph.D.(Wash. U., St. Louis), Assistant Professor **East Asian Languages and Literatures**

VISHVAS GOVITRIKAR, A.M., Ph.D.(Penn.), Lecturer **Philosophy**

K.N. GOWRISANKARAN, B.A., M.A.(Madras), Ph.D.(Bombay), Professor **Mathematics**

ANN GRAFSTEIN, Lecturer **Linguistics**

GUY J. GROEN, B.A., M.A.(Tor.), Ph.D.(Stan.), Associate Professor **Education**

T. HAFSI, B.Eng.(Paris), M.Eng.(Alger.), M.Sc.(M.I.T.), Ph.D.(Harv.), Assistant Professor **Management**

C. HARDY, B.Sc.(Warwick), Assistant Professor **Management**

M. HARVEY, B.A.(McG.), M.Phil.(Yale), Dr. Fil. & Let.(Madrid), Associate Professor **Hispanic Studies**

JOHN HAWTHORN, B.A.(Oxon.), M.A.(McG.), Lecturer **Philosophy**

BARBARA HEPPNER, B.A.(Wellesley), M.S.W.(McG.), Assistant Professor **Social Work**

ESTELLE HOPMEYER, B.A., M.S.W.(McG.), Assistant Professor **Social Work**

M. JAMAL, B.A., M.A.(Punjab), M.B.A., Ph.D.(U.B.C.), Lecturer **Management**

MARTIN JEFFERY, B.A., S.T.L., M.A.(Ott.), Associate Professor **Education**

V. JOG, B.I.T.S.(Pilani), M.Eng., M.B.A.(McG.), Lecturer **Management**

J. JOHAR, B.Sc.(Delhi), L.L.B.(Poona), Dip.M.M.(Bombay), M.B.A.(McG.), Lecturer **Management**

P.J. JUTRAS, B.Sc.(Agr.), (McG.), M.S.(Maine), Associate Professor **Agriculture**

DANIEL KAUFER, B.C.L., LL.B.(McG.), Lecturer **Management**

N. KEESAL, B.A., M.B.A.(Harv.), Lecturer **Management**

L. KERKLAAN, B.Com.(Sir G. Wms.), Lecturer **Management**

HARRY KIRSCHNER, B.Mus., M.Mus.(U.B.C.), Lecturer **Music**

WOLFGANG KROL, Lecturer **Music**

JOHN C. KURIEN, Ph.D.(Vanderbilt), Associate Professor **Economics**

SYLVIE LAFLEUR, B.A.(McG.), Lecturer **French Language and Literature**

WILLIAM M. LAWLOR, B.Com., B.Ed.(Montr.), M.A., Ph.D.(Ott.), Associate Professor **Education**

B. LAWRUK, Ph.D.(Lwow), Associate Professor **Mathematics**

PATRICIA LECAVALIER, B.Sc., M.A.(Ott.), Lecturer **Sociology**

H.C. LEE, B.Sc.(Man.), Ph.D.(McG.), Assistant Professor **Engineering**

B. BARRY LEVY, B.A., M.A., B.R.E.(Yeshiva), Ph.D.(N.Y.U.), Associate Professor **Jewish Studies**

DONALD P. LITTLE, B.A.(Vanderbilt), M.A.(Stan.), Ph.D.(U.C.L.A.), Professor **Religious Studies**

D.A. LOWTHER, B.Sc.(Lond.), Ph.D.(Brighton Poly.), Associate Professor **Engineering**

A.R. MARSHALL, B.Com.(Dal.), M.A.(McG.), M.B.A.(Wis.), C.A., Associate Professor **Management**

ANTHONY C. MASI, A.B.(Colgate), M.A., Ph.D.(Brown), Assistant Professor **Sociology**

FRANK McGILLY, B.A.(St.F.X.), Ph.D.(Pitt.), Associate Professor **Social Work**

A. MICHALSKI, B.A.(McG.), M.A., Ph.D.(Prin.), Associate Professor **Hispanic Studies**

ROBERT MILLER, B.A., (Car.), B.Sc., (Alta.), M.Sc., (McG.) Lecturer **Management**

DOMINIC MODAFFERI, B.A.(Montr.), M.A. (Wesleyan), Associate Professor **Education**

O. MUEHLING, Lecturer **Engineering**

MARTHA E. NIXON, B.Ed., M.Ed.(McG.), Assistant Professor **Education**

P. NOBLE, B.A.(Montr.), Ph.D.(McG.), Associate Professor **Political Science**

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CLIFFORD J. PAPKE, B.A.(Montr.), O.A.C.A., Associate Professor **Education**

E. PERRATON, B.Sc.A.(Laval), M.Sc.(McG.), Lecturer **Agriculture**

MICHELANGELO PICONE, Lic. Cl., Dott. Lett. (Firenze), Associate Professor **Italian**

FRANCIS X. PINTO, L.Ph.(Gregorian), B.A.(Madras), Ll.B., M.A.(Bombay), Associate Professor **Education**

R. RIGELHOF, B.Sc.(Sask.), M.Sc.(Wat.), Ph.D.(McN.), Associate Professor **Mathematics**

DOUGLAS RILEY, B.Sc., M.Sc.(Springfield), Associate Professor **Education**

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GEORGE L. SNIDER, A.B.(Boston), M.A., Ph.D.(Harv.), Associate Professor **Classics**

DOROTHY M. SOKOLYK, B.A.(Sir G. Wms.), M.A.(Col.), Associate Professor **Education**

DONALD STEVEN, B.Mus.(McG.), M.F.A.(Prin.), Associate Professor **Music**

FRANGA STINSON, B.A.(Sir G. Wms.), M.A.(McG.), Ed.D.(Syr.), Associate of the University of London, Professor **Education**

R. LYNN STUDHAM, N.D.D.(Sunderland), A.R.A.(Royal Acad., Copenhagen), M.A.(E. Carolina), C.S.G.A., S.C.A., Associate Professor **Education**

MICHAEL SULLIVAN, B.A.(C'dia.), M.A.(McG.), Lecturer **Sociology**

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GENTILE TONDINO, R.C.A., Associate Professor **Education**

HEATHER TRUMP, Cert. in Ed.(Brist.), Adv. Dip. Primary Ed.(Cantab.), M.Ed.(Vermont), Associate Professor **Education**

L.J. VROOMEN, Lecturer **Engineering**

PEGGY WANG, B.A., M.A.(McG.), Lecturer **East Asian Languages and Literatures**

E. PADDY WEBB-HEARSEY, M.A.(Sir G. Wms.), Associate Professor **Education**

WILLIAM WEES, B.A.(N'West.), M.A.(Roch.), Ph.D.(N'West.), Associate Professor **English**

BOYD E. WHITE, B.A.(Sir G. Wms.), M.F.A.(Inst. Allende, Guanajuato), Associate Professor **Education**

DAVID WOOTEN, B.A., M.A.(Cantab.), Assistant Professor **Political Science**

N.T. WRIGHT, B.A., M.A., D.Phil. (Oxon.), Assistant Professor **Religious Studies**

2 GENERAL INFORMATION

Summer Session offers a variety of courses throughout the summer months. Please consult the calendar of dates in the front of this announcement for specific dates.

With each course are listed its dates and times. Please note that some courses may start before or extend beyond the normal periods. Courses that do not follow a schedule specified in the calendar of dates are subject to deadlines equivalent to those listed.

The term "daily" refers to Monday through Friday inclusively. Courses are offered daily unless otherwise indicated.

The French Summer School and the Centre for Continuing Education offer additional courses which are not administered by the Summer Session. Individuals interested in those specific programs should contact the respective offices concerned.

McGill students may obtain credit for Centre for Continuing Education courses taken during the summer only if they obtain permission to do so from their Associate Dean and complete the form entitled "Authorization for Continuing Education Courses to be Taken for Credit" prior to registering with Continuing Education.

All inquiries concerning graduate courses should be directed to the Faculty of Graduate Studies and Research, McGill University, Dawson Hall, 853 Sherbrooke St. W., Montreal, PQ H3A 2T6, telephone 392-5092.

Students applying for *graduate* studies in Education should consult the Faculty of Education section of this announcement.

Students intending to follow courses in the Faculty of Agriculture should consult that Faculty's section of this announcement regarding special registration procedures.

FORMS

Following is a description of the various forms used by the Summer Session Office.

Summer Session Registration Form: To be completed by Summer Session Special and Visiting students, new students with final acceptance to the University and returning students, i.e. those McGill students who have not been registered at the University during any part of the current academic year. **Students must not complete more than one Registration Form.** Students wishing to add, change or drop a course after their initial registration must complete a Course Change Approval Form.

Faculty Authorization Form: to be completed by *ALL* undergraduate students in a degree, diploma or certificate program at McGill and new students in possession of their final letter of acceptance. STUDENTS MUST NOT COMPLETE MORE THAN ONE AUTHORIZATION FORM. A student is not allocated a place in a course until he has registered with the Summer Session Office and paid his tuition fees. Possession of a signed Authorization Form does not guarantee a student a place in a course unless he has also registered for that course. The Authorization Form can be obtained through the Summer Session Office or through the General Office of the Faculty in which the student is registered. On this form the student must obtain the signature of the Associate Dean of his Faculty, and where required by his Faculty, the signature of a Program Director or Departmental Adviser. (Arts and Science students taking any Summer courses that are required for their programs **must** also obtain the signature of their Departmental Adviser.) These signatures must be secured *before* the form is submitted by the student to Summer Session. Currently registered McGill undergraduate degree and diploma program students may use the signed Authorization Form to register in Summer Session; they do not need to complete a registration Form as well.

Course Change Approval Form: to be completed by all students registered in Summer Session and wishing to change (add and/or drop) a course within the deadline dates. McGill students simply **dropping** a course must complete this form but need not obtain Faculty permission. McGill students wishing to **add** or **change** a course must pick up this form in the Summer Session Office, have it signed by their Associate Dean and, where required by the Faculty, the Program Director or Departmental Adviser, and return it to the Summer Session Office for processing. (Arts and Science students adding any Summer Session courses that are required for their programs **must** also obtain the signature of their Department Adviser.) Summer Special students must sign a Waiver to cover any course additions listed on the Course Change Approval Form. Summer Visiting students adding a course with the Course Change Approval Form must also sign a Waiver if the additional course is not listed as being approved on the letter of permission from the home institution.

Students using the Course Change Approval Form to simply add and pay for courses which were approved on their original Authorization Form need not obtain Faculty signatures again.

Waiver: to be completed by summer Special students, new students admitted conditionally, regular students registering for Summer Session while in unsatisfactory standing or Visiting students adding a course without permission from the home institution. This is a form releasing McGill University from the obligation to recognize the credits for which students are registering towards the completion of any degree or diploma program. This form can be obtained through the Summer Session Office. The Waiver is, under no circumstances, to be completed by McGill degree or diploma program students in good standing.

Letter of Permission: A letter to be submitted by summer Visiting students stating the number of credits and/or courses to be undertaken in the Summer Session at McGill and signed by the Registrar or other responsible authority of the summer Visiting student's institution.

Residence Application Form: to be completed by students wishing to live in residence during the Summer Session.

It is important to note that there is **no Application Form to the Summer Session.** Candidates may request information by mail, by telephone or in person, but will be **registered** only upon presentation to Summer Session of the documentation listed in the applicable categories below. Graduate students apply directly to the Faculty of Graduate Studies and Research.

CATEGORIES OF STUDENTS

NEWLY ADMITTED McGILL STUDENTS

Conditional Acceptance: Students admitted to McGill conditionally will be required to sign a Waiver, when registering for summer courses, releasing the University from the obligation to recognize credit for the work accomplished towards the completion of any degree or diploma program. Registration in summer courses on the basis of the Waiver in no way guarantees admission to McGill.

Students admitted conditionally will have their registration as Special Summer students changed to that of the Faculty into which they have been accepted as soon as *final acceptance* has been granted. In other words, the credits accumulated for their summer work will normally be counted as part of their degree program.

Final Acceptance: Students in possession of their final letter of acceptance will be required to present to Summer Session a Faculty Authorization Form signed by the Associate Dean of the Faculty into which they have been accepted and where required by the Faculty, the signature of the Program Director or Departmental Adviser. (Arts and Science students taking any Summer Session courses that are required for their programs must obtain the signature of their Departmental Adviser.) Students must bring with them a copy of their most recent transcripts and a copy of their final letter of acceptance, when requesting the signatures. Please keep the original copy of the letter of acceptance for presentation at Fall registration. The appropriate signatures must be secured before registering in Summer Session.

McGILL STUDENTS

Before registering in the Summer Session, regular undergraduate McGill Students must secure the required signatures on the Faculty Authorization Form. It is the student's responsibility to obtain these signatures *before* submitting the form (by mail or in person) to the Summer Session Office. Regular McGill students in good standing are not permitted to use the Waiver.

Securing the required signatures is only one step in the registration process. The form must then be submitted to Summer Session by the student with a bank draft or money order within the deadline dates in order for registration to be completed. **Cash payments of more than $50.00 will not be accepted.** Possession of a signed Faculty Authorization Form does not guarantee admission either after the registration deadlines or to fully subscribed courses. Students who do not secure the required signatures and register before the registration deadlines will be made to pay the late registration fee.

Teachers registered in part-time programs (other than Graduate Degree programs) in the Faculty of Education must secure the signature of the Director of the program in which they are enrolled.

Graduate students must contact the Faculty of Graduate Studies and Research for deadline dates, official signatures, and forms.

Permission to Register
In Summer Session (May and June courses)

Permission to register for Summer Session (May and June courses) has to be granted before reports of standing for the preceding term or session have been released. Permission to register for summer courses does not represent a decision as to standing in the Faculty. Students whose June reports of standing show them to be in unsatisfactory standing will be permitted to complete the summer courses for which they have registered, but they will be considered to be Special students for the Summer Session. Successful completion of the summer courses will not guarantee readmission in September for students in unsatisfactory standing as of the June reports of standing.

Permission to Register
In Summer Session (July and August courses)

Students wishing to register for summer courses *after* their June reports of standing show them to be in unsatisfactory standing will be required to sign the Waiver which will place them in the category of Special students for the Summer Session. Successful completion of summer courses will not guarantee readmission in September for students in unsatisfactory standing.

SUMMER VISITING STUDENTS

Students from other universities wishing to take courses at McGill for credit at their own universities may do so, provided they submit a letter of permission from the Registrar or other responsible authority of the home university. This letter should state the number of credits and/or courses to be attempted by the student.

Non-Canadian Visiting students please note the section on Non-Canadian summer students on Page 10.

SUMMER SPECIAL STUDENTS

Students not pursuing a degree or diploma at McGill or elsewhere may be permitted to register in the Summer Session for a specific course for which they have prerequisite requirements without being first admitted to the University, but such students will be required to sign the Waiver.

Non-Canadian Special students please note the section on Non-Canadian summer students on Page 10.

REGISTRATION

Please consult the calendar of dates in the front of this announcement for deadlines.

Students may register

In the Summer Session Office anytime after early-April (Please note the Office hours on the front page of this announcement.) OR by mail up to one week before the start of the term they wish to attend.

In order to register in the Summer Session a student must submit to Summer Session:

a. A completed Registration Form. (Those **other than** McGill students registered in the fall and/or winter sessions immediately preceding Summer Session.)

b. A certified cheque, bank draft or money order to cover full tuition fees. **(Personal cheques will not be accepted. Payments must be made to the order of McGill University in Canadian funds.) Cash payments of more than $50.00 will not be accepted.**

c. **Regular Undergraduate Students** (includes newly admitted students with final acceptances): A Faculty Authorization Form with the appropriate signatures. (This form also serves as a Registration Form for currently registered McGill students.)

Summer Visiting Students: A letter of permission from the Registrar or other responsible official of the home University.

Summer Special Students (includes students with conditional acceptances to McGill): A signed Waiver.

Non-Canadian students please note the paragraph on Non-Canadian summer students on Page 10.

Please note that it is necessary to pay for courses as you register. If you prefer to pay for only part of your courses, register and pay for only the first course(s) you wish to attend. You may then add and pay for any additional courses for which you have secured authorization at any time up to and including the first day of classes for those courses.

Residence applications and fee payments should be made directly to the Residence.

Students expecting some sort of financial assistance must also submit, along with appropriate documents, a letter from the granting agency outlining the method and date of payment.

Identification cards: Regular McGill students should use their winter identification cards for library and student services facilities during the summer; others will be issued temporary Summer Session cards.

FILLING OUT FORMS

It is imperative that students complete their forms correctly in every detail. It is also important that the students use their names in exactly the same manner on all forms they fill out during their stay at the University, e.g. using a middle name if one was used in the past.

Students will have, or will be given, a student number which remains the same throughout their attendance at McGill University. Students should be sure of their number and use it on all correspondence and forms.

Please be careful when entering the course number and state clearly whether the course is a "C", "L" or "T" course. Courses starting in May have a suffix of "C", those starting in June have a suffix of "L" and those starting in July and August have a suffix of "T".

NON-CANADIAN SUMMER SESSION STUDENTS

Non-Canadian summer students should complete their Summer Session registration as soon as possible in order to allow time to comply with the procedures necessary to obtain a student visa.

All foreign students registering in Summer Session must obtain a Canadian Student Visa. Your registration material contains an Application for a Certificate of Acceptance from the Québec government. You must complete and return this to the Québec Ministry of Immigration, along with proof of sufficient funds for your stay, at the same time you send your registration material to the University. You do not need to send Québec proof of admission or registration since we will send you a letter confirming registration—dates, fees, etc.—a copy of which will go to the Ministry automatically.

You will then receive a Certificate of Acceptance from Québec which can be presented, with your letter from McGill confirming registration in Summer Session, to a Canadian Consulate or Embassy to obtain a student visa. American students may also obtain their visa at a port of entry upon presentation of the same documents.

Please read carefully all the instructions and information included in your package.

Non-Canadian students should ensure that they have adequate hospitalization and medicare coverage before they come to McGill University since they will not be eligible for Québec Medicare.

NON-CANADIAN STUDENT TUITION FEES

Non-Canadian students who are not landed immigrants and who do not fall under one of the following exemption categories must pay tuition fees at the foreign student rate.

Foreign students who have been registered at McGill during the fall and/or winter terms immediately preceding Summer Session and who had signed a Foreign Student Fee Exemption Form to cover them for those sessions need not fill in another form for Summer Session. All other foreign students who are exempt from foreign student fees (differential fees) under any of the exemption categories listed below must fill in a Foreign Student Fee Exemption Form at the time of registration in Summer Session.

Graduate students taking Summer Session courses pay tuition fees at the same rate as undergraduate students. A graduate half course is usually equivalent to a three-credit course and a full course is usually equivalent to a six-credit course. Please consult the Faculty of Graduate Studies and Research announcement for more details concerning graduate tuition fees.

Exemptions from Differential Fees

There are six different categories under which a visa student may be exempted from differential fees and pay the Canadian rate. They are as follows:

1. Students admitted to Canada under section 7(1)(a) of the Immigration Act (diplomatic, consular and other representatives of foreign countries, the U.N., and other international agencies, their dependents and suites).
2. North American Indians in the sense of the Indian Act.
3. Students who came to Québec through a program of exchange or cooperation recognized by Québec and with an agreement for exemption from the higher fees.
4. Students from countries with which Québec has signed an agreement for exemption from the higher fees.
5. Students whose application for refugee status has been accepted and who are waiting for permanent resident status.
6. Students in any French or French Canadian Studies program leading to a degree (including joint honours) at either the graduate or undergraduate level.

Interim Fee for Returning Students

The following three categories of students will be charged tuition fees higher than the Canadian but lower than the new foreign student fee:

F. Students continuing in the same degree or diploma program at McGill University in which they were registered prior to September 1, 1981.
G. Students who are continuing in a similar degree or diploma program at McGill University to the one in which they were registered at another Québec university prior to September 1, 1981, and at the same level.
H. Students who are transferring for the first time since September 1, 1981, to a degree or diploma program different from the one in which they were registered prior to September 1, 1981, (at McGill or at another Quebec university) but within the same level.

Please contact the Summer Session Office to obtain further information and exemption forms.

FEES

Cash payments of over $50.00 will not be accepted.
(all fees subject to change without notice)

TUITION FEES

Canadian Students (including landed immigrants in Canada and students covered by the above exemptions 1 through 5 and 9.)
Per Credit $19.00

Non-Canadian Students (includes students continuing in their program—see interim fee exemptions F, G and H above.)
Per Credit $116.70

Non-Canadian Students (those for whom none of the above exemptions are applicable.)
Per Credit $145.00

ADDITIONAL FEES AND INFORMATION

Tuition fees cover the use of laboratories when applicable. Income Tax receipts will be sent in late February, 1983.

Receipts for reimbursement purposes will be sent automatically in mid-August to all 1982 Summer Session students registered in programs in the Faculty of Education.

All fees must be paid (at the time of registration) by bank draft, money order or certified cheque to the order of McGill University in Canadian funds. Cash payments of more than $50.00 will not be accepted.

Students still owing the University fees and/or fines from previous sessions will not be allowed to register in the Summer Session.

LATE REGISTRATION FEE (non-refundable)	$ 15.00
REFUND CHARGE	
Refund charge per credit	$ 2.00
RESIDENCE CHARGES	
Per Week (see Residence information section for details)	$ 72.00
STUDENTS SERVICES FEES (OPTIONAL) (non-refundable) Each Month (May, June, July and August)	$ 5.00
ATHLETICS	
4-Week Session	$ 20.00
Full Summer	$ 40.00
ENGLISH AS A SECOND LANGUAGE ACTIVITIES FEE (non-refundable)	$ 30.00

PARKING

Per Month	$ 25.00

COURSE RESTRICTIONS

Students who have previously been registered at McGill must be aware that courses they have taken and passed under another course number or in another Department or Faculty are not open to them, as specified in the course listings in this announcement. No course taken may substantially duplicate any other course for which the student receives credit.

No credit at McGill will be given to any student repeating the material contained in a course already passed at CEGEP or another university.

Other restrictions include courses that have limited registration, stated prerequisites, or that require specific permission as indicated in the course listings.

PREREQUISITES

It is the responsibility of each student (whether New, Regular, Summer Visiting or Summer Special) to ensure that he has successfully completed any prerequisites listed for a course before he registers for that course.

COURSE LOAD – SUMMER SESSION

Students may not take more than a total of 12 credits in the summer including credits from McGill and from other institutions without specific permission from their Faculty for the additional credits. Students wishing to take more than 3 credits in any four-week period must also obtain **specific** permission from their Faculty.

New students admitted conditionally and Summer Special students will be permitted to attempt no more than 3 credits in any four-week period.

Visiting students will be permitted to register for the course load listed on their letter of permission but are advised not to take more than 3 credits in any four-week period.

LATE REGISTRATION

Students will be permitted to register late in courses only if space is available. Please consult the calendar of dates in the front of this announcement for late registration deadlines. These students must register in person in the Summer Session Office and must present the appropriate registration documents, a bank draft or money order to cover full tuition fees and $15.00 **in cash** (non-refundable) to cover the late registration fee.

Courses that do not follow a schedule specified in the calendar of dates are subject to late registration deadlines equivalent to those listed.

COURSE CHANGES (ADDITIONS AND/OR DELETIONS)

McGill degree and diploma program students wishing to change or add a course after they have registered in Summer Session must first secure the appropriate signatures on the Course Change Approval Form and then submit the form to the Summer Session Office with a bank draft or money order to cover any additional tuition fees. Students simply dropping a course within the deadline dates must complete this form but need not obtain Faculty permission. Please consult the calendar of dates in the front of this announcement for deadlines. Summer Visiting and Special students must also fill out a Course Change Approval Form but must secure the permission of the Summer Session Office. The form may be obtained in the Summer Session Office.

Students are held responsible for courses for which they are registered unless and until they formally delete (drop) those courses in the Summer Session Office within the deadline dates. Notification of additions and/or deletions must be made in writing – by mail or in person – within the deadline dates. Notification by mail must **arrive** in the Summer Session Office within the deadline dates. Simply notifying the Instructor or ceasing to attend lectures is not sufficient.

Courses that do not follow a schedule specified in the calendar of dates are subject to course change deadlines equivalent to those listed.

REFUNDS

Students cancelling their registration in Summer Session (by mail or in person) before the start of classes may receive a refund of tuition fees **less $2.00 per credit.** Those deleting (dropping) courses within the deadline dates, specified in the calendar of dates in the front of this announcement, may also receive a tuition fee refund **less $2.00 per credit.** No refunds will be made to students withdrawing after the specified refund deadline dates (no exceptions will be made). This also applies to students receiving financial aid. Please note that the late registration fee ($15.00) and the English as a Second Language activities fee ($30.00) are not refundable.

Please note the course change and refund deadline dates listed in the calendar of dates in the front of this booklet.

Courses that do not follow a schedule specified in the calendar of dates are subject to refund deadlines equivalent to those listed.

Tuition fees will be refunded in full should a course be cancelled due to insufficient enrolment.

Refund cheques will be sent to the student's address two or three weeks after the Course

Change Approval Form has been received by the Summer Session Office, if the student has requested and is entitled to a refund.

WITHDRAWALS

Students who wish to withdraw "W" from a course after the course change deadlines must do so within the withdrawal "W" deadlines specified in the calendar of dates in the front of this announcement.

Courses that do not follow a schedule specified in the calendar of dates are subject to course withdrawal deadlines equivalent to those listed.

After the withdrawal "W" deadlines, and in exceptional circumstances, McGill students needing to withdraw from a course must obtain the written permission of the Associate Dean of their Faculty. (Permission will not be granted merely because a student is doing unsatisfactory work.) Non-McGill students in the same circumstance must contact the Summer Session Office.

Refunds are not available with "W's" and "WF's".

CHANGE OF NAME OR ADDRESS

McGill degree and diploma program students with changes of name (e.g. marital status) or address (sessional or home) during the summer must notify their Faculty of this change; the Faculty will then notify Summer Session. Other students—Special and Visiting—should notify Summer Session directly of any changes.

REPORTS OF STANDING

A report of standing is an **unofficial** statement designed to inform students of the marks received in courses for which they are registered.

Reports of standing will be sent to the address specified by the student.

Reports of standing are sent only to students. Those wishing transcripts of their marks sent to their home university or to a school board *must* request these in writing from the Transcripts Office. See further information below.

TRANSCRIPTS

A transcript is an official document showing the student's entire McGill academic record and destined to be sent, upon written request only, to universities, school boards and other institutions.

Requests for transcripts to be sent should be made during the last week of a student's classes. Allow one month to six weeks after course completion for transcripts to be sent. The student is sent one unofficial complementary copy when the transcript is sent.

The Transcripts Office is located on the 2nd floor of the F. Cyril James Building. The mailing address is Transcripts Office, 845 Sherbrooke St. W., McGill University, Montreal, P.Q. H3A 2T5.

Cost:- First copy $2.25. Additional copies made at the same time, each $.75.

Cost subject to change June 1, 1982.

FINAL MARKS

Final marks will NOT be given out by the Summer Session Office either over the telephone or to students inquiring in person.

GRADING SYSTEM

McGill students taking courses in Faculties that have different grading scales from their own Faculty will be graded according to their home Faculty grading scale, i.e. please note that some faculties do not permit the use of "WF".

In the summer the G.P.A. (Grade Point Average) and C.G.P.A. (Cumulative Grade Point Average) are calculated only for Mcgill degree and diploma candidates. Following is an explanation of the letter grades used at McGill University.

Normally, grades of C and higher are termed satisfactory passes, D a conditional pass and F a failure. Certain courses have been approved for Pass/Fail (P/F) grading.

Although D is a passing grade, it will not permit entry into a subsequent course for which it is a prerequisite, nor will it be recognized if the course is a requisite of the student's program. See Page 14.

GRADUATE LEVEL

The graduate level grading scale is the same as the undergraduate grading scale except that at the graduate level, a grade lower than B- is considered a Failure (F). See Page 14.

AUDITING

Auditing is not permitted in the Summer Session.

FINAL EXAMINATIONS

Final examination days are scheduled at the end of each part. In some courses there will be no final examinations; standing in these courses will be determined on the basis of course work and class tests. The decision regarding the holding of final examinations rests solely with the Instructor, but final marks must be entered for all registered summer students.

UNDERGRADUATE LEVEL

Letter Grade	Grade Point Average	Percentage Range
A	4.0	85 - 100
A−	3.7	80 - 84
B+	3.3	75 - 79
B	3.0	70 - 74
B−	2.7	65 - 69
C+	2.3	60 - 64
C	2.0	55 - 59
D	1.0	50 - 54
F	0	0 - 49

K	Incomplete	Student has valid reason for not having completed essential term papers or research. Four (4) months granted to complete. After fourmonths "K" automatically becomes "KF" if a grade has not been submitted.	G.P.A. calculation suppressed until course is completed.
KF	Incomplete-Failed	Failed to meet the extended deadline of submission of work in a course.	Counted as "F" in G.P.A. calculations.
J	Absent	The student is registered but does not write the examination or do other essential work and has no valid reason, or fails to notify Summer Session Office of withdrawal within deadlines.	Counted as "F" in G.P.A. calculations.
W	Withdrew	Student withdraws from a course within the withdrawal "W" deadlines.	Does not enter into G.P.A. calculations
WF	Withdrew Failing	Student withdraws **with special permission** from a course after the withdrawal deadlines but the work done to date is on the level of and "F".	Does not enter into G.P.A. calculations.
L	Deferred	Student's final exam has been deferred for reasonssuch as illness or family affliction at the time of the examination. Approval of Associate Dean of Student's Faculty is necessary.	G.P.A./C.G.P.A. will not be calculated until "L" is cleared.

FINAL EXAMINATIONS Cont'd

Instructors are not permitted to grant any special treatment regarding examinations to any students. If a student believes there is some circumstance which might be legitimately taken into account in the grade evaluation process, the Associate Dean of the students Faculty should be contacted, not the Summer Session Office. Summer Visiting and summer Special students should contact the Faculty offering the course.

A student who has not, without accepted excuse, participated in or written the final examination for a course and who does not formally withdraw from or delete that course will be given a letter grade of "J" (absent).

EXCUSED ABSENCE FROM EXAMINATIONS

The Associate Dean of a student's Faculty must be informed of the reasons for an absence within three days of a final examination if, as a result of illness or family affliction, a student is unable to write that final examination. If the request is approved, an "L" will appear on the report of standing in the place of a grade and will be replaced by the grade obtained in the deferred examination after it has been written. The Associate Dean will advise the student of the date of the examination(s).

A summer Visiting or Special student may be allowed to write a deferred examination if suitable arrangements can be made as to a date for the examination and if approval is granted both by the Visiting Student's Home University (for Special students, the Summer Session Office) and the Associate Dean of the Faculty offering the course at McGill. The "L" will be replaced by the grade received in the deferred examination(s) on official transcripts.

SUPPLEMENTAL EXAMINATIONS

There are no supplemental examinations for Summer Session courses.

REASSESSMENTS AND REREADS

Papers are marked and grades calculated and handled with considerable care. However, students wishing marks checked or formal final examination papers re-read should apply in writing to the Office of the Dean or Associate Dean of their Faculty, not to the Summer Session Office. *Reassessment* (recalculation of grades) is done free of charge. If there is no change in the grade as a result of the reassessment, and if there is a formal final examinationin the course, the student may then apply for a *re-read* of the final examination paper, for which there is a $10 fee. The fee will be refunded if an error is found in the student's favour. If the result is a lower mark, the lower mark will stand and there will be no refund. Computer-marked exams can be reassessed but not re-read. Requests for reassessment of standing in more than one course will not be permitted.

Any request to have **term** work re-evaluated must be made directly to the Professor concerned.

ENGLISH AS A SECOND LANGUAGE COURSE

The Summer Session offers an English course (128-150T ENGLISH AS A SECOND LANGUAGE) for the convenience of students who have been accepted to begin their studies in September but who lack fluency in that language. Students whose mother tongue is other than English and who wish to improve their oral and written expression in the language should avail themselves of the opportunity.

The course consists of two hours of class and one hour of language lab every morning from Monday to Friday (July 5 - August 11); workshops, excursions, socio-cultural activities, and open labs will be held in the afternoon.

Due to the intensity of the course, students must be available to start on the first day of classes. Workshops and other activities form an integral part of the course and afford valuable opportunities for the development of language skills. All students are required to participate fully in these activities.

A placement test is mandatory for all students in this course. This test is not an examination, but merely a way of determining at which level a student should be placed. Testing will be held on July 5th, the first day of classes. Candidates will be given, when they register, a card indicating where they must present themselves for testing. No student may take the placement test without having registered for the course.

The English and French Language Centre reserves the right to refuse admission to students whose proficiency in English is judged to be extremely high.

N.B.: Students may register until the course is full. Registration is on a first come, first served basis, and students are advised to register early in order to avoid disappointment (registration is limited). Please consult the section on tuition fees in this announcement, Page 11. All fees must be paid at the time of registration by CERTIFIED CHEQUE, BANK DRAFT or MONEY made out to "McGill University" in Canadian funds. **Cash payments of more than $50.00 will not be accepted.** There will be a compulsory $30.00 fee (non-refundable) to cover expenses for lab work, testing and extra-curricular activities, which must be paid at the time of registration.

Students wishing to take this course but who have not been admitted to McGill will be permitted to register upon signing the Waiver described in the "General Information" section of this announcement. Students may register by mail or in person; Registration Forms and Waivers are available in the Summer Session Office.

Non-Canadian students please note the section on Non-Canadian summer students on Page 10.

COURS D'ANGLAIS LANGUE SECONDE

La Session d'été offre un cours d'anglais élémentaire (128-150T ENGLISH AS A SECOND LANGUAGE) à l'intention des étudiants devant commencer leurs études en septembre et qui présentent des lacunes sur ce plan. On recommande aux étudiants dont la langue maternelle n'est pas l'anglais et qui désirent améliorer leur anglais sur les plans de l'expression orale et écrite de s'inscrire à ce cours.

Le cours comprend deux heures de cours et une heure de laboratoire de langue; il se donne tous les matins du lundi au vendredi (5 juillet - 11 août). Des ateliers, excursions, activités socio-culturelles et laboratoires ouverts (open labs) auront lieu l'après-midi.

En raison de la concentration des cours, les étudiants doivent être prêts à y assister dès le premier jour. Ateliers et autres activités font partie intégrante du programme et offrent une occasion enrichissante de parfaire les compétences linguistiques. Les étudiants sont tenus de participer pleinement à ces activités.

Tous les étudiants inscrits à ce cours devront se soumettre à un test de classement. Ce test n'est pas un examen mais un moyen de déterminer le niveau auquel l'étudiant doit s'inscrire. Le test aura lieu le 5 juillet, premier jour des cours. On donnera aux étudiants, au moment de l'inscription, une carte leur indiquant où ils doivent se présenter au test. Pour être admis au test, l'étudiant doit d'abord s'être inscrit au cours. Le Centre se réserve le droit de refuser l'admission des étudiants qui font preuve d'une très grande compétence en langue anglaise.

N.B. Les étudiants peuvent s'inscrire jusqu'à ce qu'il n'y ait plus de places disponibles. L'inscription s'effectuera dans l'ordre d'arrivée des candidats; il est conseillé de s'inscrire tôt afin de s'éviter des déceptions, car le nombre des inscriptions est limité. Veuillez consulter la section relative aux droits de scolarité qui figure à la page 11. Tous ces droits doivent être réglés par TRAITE BANCAIRE ou par MANDAT libellé à l'ordre de l'université McGill et émis en devises canadiennes au moment de l'inscription. **Les montants comptant en plus de $50 ne peuvent être acceptés.** Des droits de $30 (non remboursables) sont exigés pour les frais de laboratoire, de test et d'activités para-scolaires; ces frais seront acquittés au moment de l'inscription.

Les étudiants qui désirent suivre ce cours sans avoir été admis à McGill y seront autorisés, à condition de signer la formule de décharge décrite à la rubrique des "renseignements généraux" de l'annuaire. On peut s'inscrire en personne ou par correspondance et se procurer les formules d'inscription et de décharge au bureau de la session d'été.

Les étudiants étrangers voudront bien consulter la rubrique qui les concerne, page 11.

CLASSROOM INFORMATION

With each course is listed its location — building and classroom number. Following is a list of the building codes used (please consult notice boards for changes):

BUILDING CODES (for Macdonald Campus— see below)

3434MT	3434 McTavish Street
3438MT	3438 McTavish Street (Lindsay House)
3475PL	3475 Peel Street
3479PL	3479 Peel Street
3511PL	3511 Peel Street
ARTS	Arts Building
BIRKS	W.H. Birks Building
BURN	Burnside Hall
BRONF	Samuel Bronfman Building
CDH	Chancellor Day Hall
CURRIE	Sir Arthur Currie Memorial Gym
DAVIS	Davis House
DUGGAN	Duggan House
EATON	Eaton Building
ED	Education Building
ENGMC	McConnell Engineering Building
ENGMD	Macdonald Engineering Building
FDA	Frank Dawson Adams Building
FRL	Foster Radiation Laboratory
HOSMER	Hosmer House
LEA	Leacock Building
MDHAR	Macdonald-Harrington Building
MCLIB	McLennan Library
MCMED	McIntyre Medical Building
MOR	Morrice Hall
MUSIC	Strathcona Music Building
OM	Otto Maass Chemistry Building
PATH	Pathologic Institute
PETH	Peterson Hall
PURVIS	Purvis Hall
REDLIB	Redpath Library
REDMUS	Redpath Museum
RPHYS	Ernest Rutherford Physics Building
SADB	Strathcona Anatomy & Dentistry Building
STBIO	Stewart Biology Building
STRATH	Strathcona Hall
WILSON	Wilson Hall

MACDONALD CAMPUS (Faculty of Agriculture)

MAC-AE	Agricultural Engineering Bldg.
MAC-R	Raymond Bldg.

STUDENT SERVICES

RESIDENCES

Accommodation is available to both **men and women** at the McGill residences, during the summer. The comfortable on-campus residences are beautifully situated in the green spaces on the mountain with public transportation nearby.

The Residence fee is $72 per week (i.e. 7 nights accommodation in single room with shared male or female washrooms; linen is provided.) Fees are payable in advance directly to the Residences. There is also a $20 room reservation deposit payable at the time of application, which is non-refundable, but applicable to the residence fee.

Summer residents are welcome to take their breakfast meals in the large centrally located Bishop Mountain Hall Dining Room. Breakfasts may be purchased on an à la carte basis. Lunch and diner will be provided only at certain times during the summer; the dates will be posted as soon as they become available. There are kitchenettes on every wing of the co-ed residences where residents may keep food and prepare meals at any time. Mini-fridges are also available for rent for individual use. Vending machines in every hall dispense fruit juices, softdrinks and snacks. Laundry facilities are located in the basement of each residence.

Residence information and application forms may be obtained from the Summer Session Office and from:

Accommodation McGill
Residences
3935 University Street
Montreal, Que.
H3A 2B4
Phone: (514) 392-4224
392-4222

LIBRARIES

Summer students are welcome to make use of the University's library facilities. Following is a list of libraries on campus, including addresses and telephone numbers for general information. Since individual privileges and summer hours of service may vary from library to library, it is wise to check with a library before visiting. Stack access and borrowing privileges are assured in the Undergraduate Library and in McLennan Library, which houses the research collection in Humanities and Social Sciences.

HUMANITIES AND SOCIAL SCIENCES AREA LIBRARY

Blackader-Lauterman
Art and Architecture
Redpath Library Building, Third Floor
3459 McTavish St.
Tel: 392-5211

Education and Curriculum Lab
Faculty of Education Building, Main Floor
3700 McTavish St.
Tel: 392-8849

Howard Ross
Management
Bronfman Building, Second Floor
1001 Sherbrooke St. W.
Tel: 392-5804

Islamic Studies
Leacock Building
Rm. 911
855 Sherbrooke St. W.
Tel: 392-5197

Library Science
McLennan Library Building
Street Level
3459 McTavish Street
Tel: 392-5931

McLennan
McLennan Library Building
3459 McTavish Street
Tel: 392-4936 (circulation)
392-4943 (reference)

Marvin Duchow Music
(Books, scores, records)
Strathcona Music Building, East Wing
555 Sherbrooke St. W.
Tel: 392-4530

Physical Education
Sir Arthur Currie Gym, Room 207
475 Pine Avenue W.
Tel: 392-8893

Religious Studies
William & Henry Birks Building, Second Floor
3520 University St.
Tel: 392-4832

Social Work
Wilson Hall, Ground Floor
3506 University St.
Tel: 392-5046

LAW AREA LIBRARY

Law
New Chancellor Day Hall, Fourth Floor
3644 Peel St.
Tel: 392-5066

LIFE SCIENCES AREA LIBRARY

Blacker-Wood
Zoology and Ornithology
Redpath Library Building, Second Floor
3459 McTavish Street
Tel: 392-5406

Botany-Genetics
Stewart Biological Sciences Building
Rm S3/1
1205 Docteur Penfield Avenue
Tel: 392-5829

Dentistry
Strathcona Anatomy and Dentistry Building
3640 University St., Main Floor
Tel: 392-4926

Macdonald Campus
Agriculture
Macdonald Campus, Barton Building
Ste. Anne de Bellevue, PQ
Tel: 457-2000, ext. 348

Medical
McIntyre Medical Sciences Building
3655 Drummond St., Third Floor
Tel: 392-4334 (circulation)
392-4339 (reference)

Nursing
Wilson Hall, Basement
3506 University St.
Tel: 392-5027

Osler
History of Medicine
McIntyre Medical Sciences Building
3655 Drummond St., Third Floor
Tel: 392-4331

PHYSICAL SCIENCES/ENGINEERING AREA LIBRARY

Map and Air Photo
Burnside Hall, Room 524
805 Sherbrooke St. W.
Tel: 392-5492

Mathematics
Burnside Hall
Rm. 1105
805 Sherbrooke St. W.
Tel: 392-8273

Meteorology
Burnside Hall, Room 705
805 Sherbrooke St. W.
Tel: 392-8237

Northern Studies
Purvis Hall
1020 Pine Avenue W.
Tel: 392-8233

Oceanography
Eaton Building
3620 University Street
Tel: 392-5723

Physical Sciences and Engineering
Macdonald Physics Building
809 Sherbrooke St. W.
Tel: 392-5914

Rutherford Physics
Rutherford Physics Building
3600 University St.
Tel: 392-4785

UNDERGRADUATE AREA LIBRARY

Undergraduate
Redpath Library Building
3459 McTavish Street
Tel: 392-4288

AFFILIATED LIBRARY

Allan Memorial Institute (AMI)
Psychiatry collection
1025 Pine Avenue W.
Tel: 842-1251, ext. 269

BOOKSTORE

The McGill University Bookstore, located in the Bronfman Building, 1001 Sherbrooke Street West, keeps normal business hours — 9:00 to 17:00, Monday to Friday. For annual inventory purposes it will be closed the last week of May (24th). Pending further notice, the bookstore will be closed on Fridays during July and August. The bookstore is not open on Saturdays. Please contact the bookstore directly for further information, 392-4870.

PARKING REGULATIONS

A limited number of Summer Session students will be allowed to park in predesignated areas providing they pay the normal rates and abide by the rules and regulations. Parking permits may be obtained at the Parking Office which is located at 840 Dr. Penfield, Physical Plant Dept., Phone No. 392-5760, between the hours of 13:00 and 16:30, daily Monday through Friday inclusive. The office will be closed on Friday during the summer months.

McGill University does not accept liability for damage to or theft of a vehicle or its contents while on the University's property.

Cost: $25.00 per month.
Cost subject to change.

OPTIONAL STUDENT SERVICES AVAILABLE TO SUMMER SESSION VISITING AND SPECIAL STUDENTS.

Office of the Dean of Students
Chaplaincy Service
Tutorial Service
Student Counselling Service
Student Aid and Foreign Student Adviser Office
Health Service
Off Campus Housing
Student Placement

McGill students who have validated. I.D. cards from the 1981-82 fall and winter sessions have access to these student services as part of their registration for 1981-82.

All other students will be welcome to use these facilities during their summer stay. Membership will be on a *VOLUNTARY* basis. A non-refundable fee (subject to change) of $5.00 each month (May, June, July and August) paid to the Summer Session Office will entitle students to the following services:

OFFICE OF THE DEAN OF STUDENTS

The Dean of Students is responsible for all Student Services. The Dean, Associate Dean and the

Liaison Officer are available for consultation with students who would like to discuss individual problems or who seek information about the University and its procedures. Moreover, the Dean and Associate Dean act as unofficial "ombudsmen", and are prepared to help students who feel that "normal channels" are not sufficient in their cases.

The Office of the Dean of Students maintains an "open door" policy and students are invited to drop by either with or without an appointment.

Location:	3637 Peel St.
General Information:	392-5364

CHAPLAINCY SERVICE

A pastoral service is available through the campus Chaplains independent of McGill administration. This service exists to serve the needs of all McGill students, families and staff. The service is related to areas such as problems of faith, premarriage counselling, marital problems, value systems and worship. Open meetings on a variety of religious and campus topics are regularly sponsored by the Chaplains. Social service projects are sponsored in conjunction with Hillel, Newman and S.C.M. Yellow Door and opportunities are offered to work with the poor, aged, children and prisoners.

At 3484 Peel Street there is a lounge, chapel and reading area where books and periodicals are available to students free of charge. Information concerning individual denominational services is available.

Location:	3484 Peel St.
General Information:	392-5890

TUTORIAL SERVICE

The Tutorial Service is available to any student who has paid Student Service fees and costs between $2.00 and $5.00 per hour. Tutoring is available not only during the regular academic year but also on a limited basis during the Summer Session.

Location:	3637 Peel St.
General Information:	392-6741

STUDENT COUNSELLING SERVICE

This office provides a place where students of all faculties may discuss any problem confidentially. Among the services offered are individual counselling, psychological assessment, vocational testing, career planning and the Career Information Library.

Location:	3637 Peel St.
General Information:	392-5119

STUDENT AID & FOREIGN STUDENT ADVISER OFFICE

The Student Aid section of this office handles all matters relating to financial assistance whether University, Provincial or Federal. Non-Canadian students requiring certification of registration and/or letters of advice to Foreign Exchange Control Boards obtain these from this office.

The Foreign Student Adviser section of this office deals with all matters which may affect non-Canadian students such as problems with the Canadian Department of Manpower and Immigration.

Location:	3637 Peel St.
General Information:	392-5256

HEALTH SERVICE

The Health Service is open from 9:00 – 16:00, Monday to Friday. There are both male and female physicians on staff as well as a competent staff of college health nurses. Students must bring their student I.D. cards and their Medicare cards or equivalent. All information is completely confidential and forms no part of any "University record".

Many students are seen for discussion about sexual life, contraception, drug problems and venereal disease. We urge students who suspect that they have V.D. to consult us. We invite students who are concerned about a drug problem to contact the Health Service and most particularly the Mental Health Section which provides psychiatric and psychological help.

In order to ensure medical coverage while a student is at McGill, Canadian students from provinces other than Québec are advised to consult with the medicare and hospital insurance offices of their own province before coming to McGill. This is particularly important since residents of other provinces are not covered by Québec Medicare and Hospitalization while studying at McGill.

Non-Canadian students must ensure that they have adequate medical and hospitalization coverage before they come to Montreal as they will not be eligible for Québec Medicare. McGill University can provide medical insurance, for a nominal premium, to those Summer Session students who may require this coverage. Information on the McGill Foreign Student Insurance Plan is available from the Liaison Officer to the Dean of Students.

Location:	3637 Peel St.
Appointments and General Office:	392-5441
Mental Health Section:	392-5449

OFF-CAMPUS HOUSING SERVICE

This service operates on a year-round basis. Up-to-date listings of various types of accommodation in the downtown area and surrounding suburbs on bus and metro routes are maintained with the use of McGill computers. Students wishing to make use of the service are asked to apply in person.

Location:	3637 Peel St.
General Information:	392-4554

STUDENT PLACEMENT

The Canada Manpower Centre provides a comprehensive placement service to McGill students in the areas of part-time, summer and permanent employment. The principal aims of the service are to encourage employers to make available a wide variety of job opportunities to McGill students; to assist students in finding suitable employment, by providing information on the labour market and arranging interviews with prospective employers; to encourage students to prepare for a career by doing their own research into the labour market through library facilities, films, seminars, plant visits, summer and part-time jobs. The placement service is intended for Canadian and landed-immigrant students; however, the service will assist non-immigrant students who wish to clarify their situation.

Location:	3637 Peel St.
General Information:	283-4411

ATHLETIC FACILITIES

The Currie Gymnasium and adjacent Athletic facilities are available to Summer Session students on a membership basis between May 3 and August 7, 1982. Squash, Swimming, Badminton, Weight Training, Martial Arts, Volleyball and Basketball facilities are available in the Currie Gym.

The Molson Stadium Field and Running track is also available. A **separate** Tennis membership can be purchased.

The Athletics Department offers an instructional program in activities such as Swimming, Dance, Tennis, Fitness, Yoga, Golf and Squash. Additional information on these programs will be available from the Athletics Department at the beginning of the Summer Session.

Athletic memberships are obtainable from the Athletics Department located at 475 Pine Ave. West. Summer Session students will be requested to present their valid summer identification cards prior to purchasing their Gym membership.

Cost:	4-Week Session	$20.00
	Full Summer	$40.00
	Locker, Lock and Towel Service	$ 6.00
	($3.00 refund on return of lock, towel and stub)	

Athletic fees must be paid in the gymnasium not in the Summer Session Office or Cashier's Office.

3 COURSE DESCRIPTIONS

FACULTY OF ARTS

ANTHROPOLOGY

151-202L COMPARATIVE CULTURES. (3 credits.) The comparison of human societies at different levels of scale and complexity: hunting bands, horticultural and pastoral tribes, agrarian states, and industrial states. How differences in the scale and complexity of social organization and cultural systems relate to different modes of subsistence.
June 1 – July 2
10:30 – 13:00 daily
Pre-sessional readings: Bowen, Elinore, *Return to Laughter;* Marshall Thomas, Elizabeth, *The Harmless People.* **ENGMD 285**

151-203C HUMAN EVOLUTION. (3 credits.) An examination of man's biological origins and the significance of his physical diversity. The behaviour of non-human primates, primate evolution, the role of culture in human evolution, racial classifications, the dynamics and behavioural significance of racial variation. (Not open to students who have taken 151-303B.)
May 3 – May 28
10:30 – 12:30 daily
Text: Campbell, B.G., *Humankind Emerging,* 2nd ed., Little, Brown, 1979.
Professor Yesner **BURN 18**

151-224T WOMEN IN CROSS-CULTURAL PERSPECTIVE. (3 credits.) Introduction to the comparative study of women in society. A wide range of anthropological studies are examined along with theoretical models regarding changes in women's position. Women in simple and complex societies; women and social change; problems of women in developing societies.
July 5 – July 29
10:30 – 13:00 daily **ENGMD 285**

151-316C ANTHROPOLOGY OF COMPLEX SOCIETIES. (3 credits; Prerequisite: One course in Anthropology.) Selected topics in the study of complex societies; rural-urban continuum migration and adaptation to urban life, poverty, culture, cultural scenes. Evaluation of anthropological approaches to the study of complex society.
May 3 – May 28
10:30 – 12:30 daily **BURN 21**

CLASSICS

114-203C INTRODUCTION TO GREEK MYTHOLOGY. (3 credits.) A survey of the myths and legends of Ancient Greece.
May 3 – May 31
13:30 – 15:30 daily
Text: Morford and Lenardon, *Classical Mythology,* 2nd ed., Longman, 1977.
Pre-Sessional Readings: Hamilton, E., *Mythology,* Mentor Books, 1969; or Garfield, L., and Blishen, E., *The God Beneath the Sea,* Corgi Books, 1973.
Professor Snider **BRONF 151**

EAST ASIAN LANGUAGES AND LITERATURES

117-210C FIRST LEVEL CHINESE. (6 credits.) Introduction to the basic structures of modern Chinese in both the Pin-yin system and ideograms (450 characters and 1,200 compounds approximately). Emphasis on speaking and reading, direct method with tapes and filmstrips for audio-lingual achievements.
May 3 – June 30
8:00 – 10:00 daily
Text: *Elementary Chinese,* Part I and II, Peking Commercial Press, 1975; Wang, Peggy, Laboratory Workbook, Exercise Workbook, Flashcards, McGill University, 1973.
Limited Registration
Mrs. Wang **BURN 16**

117-215L FIRST LEVEL JAPANESE. (6 credits.) Introduction to the basic grammar and sentence patterns of the Japanese language in both oral and written forms. In reading and writing skills students will be introduced to *Katakana* and *Hiragana* and approximately 300 *Kanji.*
June 1 – July 30
10:30 – 12:30 daily plus laboratory time.
Text: Japanese Language Promotion Centre, *Intensive Course in Japanese—Elementary.*
Limited Registration
Professor Geddes **BURN 16**

ECONOMICS

154-200C ECONOMIC ANALYSIS AND APPLICATIONS. (6 credits.) A university level introduction to price theory, national income determination, money and banking, international trade theory and economic policy. The course will be given in several sections. Sections will be designed to accommodate students with varying backgrounds in economics. (Not open to students who have taken or are taking 154-202, -203, or -204.)
May 3 – June 25
10:30 – 12:30 daily
Text: Lipsey, Sparks and Steiner, *Economics,* Harper and Row.
Professor Kurien **ARTS 265**

154-205L AN INTRODUCTION TO APPLIED POLITICAL ECONOMY. (6 credits; Prerequisite: 154-200.) The concept of the corporation, the economics of crown corporations, the multinational firm, resources policy and economic development of Québec.
June 1 – July 28
Times: T.B.A.

154-302L MONEY AND BANKING. (6 credits; Prerequisite: 154-200.) Principles of money, banking and central banking covering the nature of money, measurement of money supply, determination of the quantity of money; sources of bank funds, uses of bank funds, nature of central banking, monetary policy, and the international payments system.
June 1 – July 28
Times: T.B.A.

ENGLISH

110-215L INTRODUCTION TO SHAKESPEARE. (3 credits.)
June 1 – June 25
13:30 – 15:30 daily
Professor Shaw **ARTS 265**

110-224C AMERICAN LITERATURE. (6 credits.) A survey of American literature. (Not open to students who have taken 110-225 or -226.)
May 3 – June 29
10:30 – 12:30 daily
Professor Ohlin **ARTS W120**

110-229T CANADIAN LITERATURE II. (3 credits.) Introduction to Canadian prose.
July 5 – July 29
10:30 – 12:30 daily
Professor Darling **ARTS 260**

110-230C INTRODUCTION TO DRAMA. (6 credits.) A survey of major types and authors of Western drama.

May 3 – June 29
10:30 – 12:30 daily
Professor Shaw **ARTS 270**

110-260C APPROACHES TO LITERARY STUDY. (6 credits.) A study of critical methods.
May 3 – June 29
10:30 – 12:30 daily
Professor Booth **ARTS W20**

110-279C INTRODUCTION TO THE FILM. (6 credits.) An introductory study of the cinema as a medium.
May 3 – June 29
10:30 – 13:00 daily
Professor Wees **BRONF 151**

ENGLISH AND FRENCH LANGUAGE CENTRE

ENGLISH

128-150T ENGLISH AS A SECOND LANGUAGE. (6 credits; Prerequisite: Placement test.) Designed to help students whose native tongue is not English and who have difficulty in: a) understanding spoken English, b) speaking it, c) reading English text material or d) writing assignments in English. Classroom instruction and language lab. (Open to anyone whose mother tongue is not English). Limited enrolment on a first come, first served basis. Please see "English as a Second Language Course" in the General Information section of this announcement. (Not open to students who have taken 110-150 for credit towards a degree program at McGill.) The Centre reserves the right to refuse admission to students whose proficiency in English is judged to be extremely high.
July 5 – August 11
9:00 – 12:00 and 12:30 – 14:00 daily
Limited Registration

128-150T ANGLAIS – COURS DE LANGUE SECONDE. (6 crédits.) Offert aux étudiants dont la langue maternelle est autre que l'anglais et qui ont de la difficulté à a) le comprendre, b) le parler, c) le lire, d) l'écrire. Cours et périodes de laboratoire. Ouvert à tous ceux dont la langue maternelle n'est pas l'anglais. L'inscription est limitée; les premiers arrivés seront les premiers servis. Prière de consulter la rubrique "cours d'anglais langue seconde" à la section Renseignements Généraux de cet annuaire. (Les étudiants qui ont suivis le cours 110-150 pour crédit ne seront pas admis.) Le Centre se réserve le droit de refuser l'admission des étudiants qui font preuve d'une très grande compétence en langue anglaise.
5 juillet – 11 août
9h – 12h et 12h30 – 14h du lundi au vendredi
Cours contingenté

FRENCH

All students must take a placement test at the Centre before registering. Make an appointment during April: 392-5727.

127-205C ELEMENTARY FRENCH LANGUAGE. (6 credits; Prerequisites: Up to one semester of Beginner's French and Placement Test.) For students who, though they are not beginners, have not studied sufficient French to be admitted to the second level (127-211). Rapid review of basic structures and vocabulary. Language Laboratory Practice. (Not open to students who have taken 127-201). All students must be interviewed at the Centre before registration.
May 3 – June 11
10:30 – 12:30 daily
Limited Registration **PETH 50**

127-211C ORAL AND WRITTEN FRENCH I. (6 credits; Prerequisite: Placement test.) Open to students having only an elementary knowledge of French. Grammar review, comprehension, vocabulary, conversation. Oral presentations by groups of 2 or 3 students. All students must be interviewed at the Centre before registration.
May 3 – June 23
10:30 – 12:30 4 days a week T.B.A.
Limited Registration **PETH 55**

127-321C ORAL AND WRITTEN FRENCH II. (6 credits; Prerequisite: Placement test.) For those having taken 127-211 or equivalent. Comprehension, discussion, reading, grammar review. Language Laboratory practice. Extracurricular activities. (Not open to students who have taken 127-221, -322 or -323). All students must be interviewed at the Centre before registration.
May 3 – June 23
10:30 – 12:30 4 days a week T.B.A.
Limited Registration **PETH 60**

127-400C FRANÇAIS FONCTIONNEL. (6 credits; Prerequisite: Placement test.) Practice in oral French via discussions, student presentations, films, records, etc. Systematic study of recurrent language problems. Short written assignments. Frequent extracurricular activities are a compulsory part of the program. Students will each be required to work on a project demonstrating their contacts with the French-speaking community. (Not open to students who have taken 127-341, -401, -402, -403 or -404). All students must be interviewed at the Centre before registration.
May 3 – June 23
10:30 – 12:30 4 days a week T.B.A.
Limited Registration **PETH 65**

127-405C FRANÇAIS FONCTIONNEL, OPTION ÉCRIT I. (3 credits; Prerequisite: Placement test.) For students whose oral French is of a good standard but whose written French is noticeably inferior. Written assignments designed to develop

vocabulary and correct expression on a functional level. Use of dictionaries and reference materials. (This course aims to help students reach the standard required for Composition I, 125-200, in the Department of French Language and Literature.) All students must be interviewed at the Centre before registration.
May 3 – May 25
10:30 – 12:30 daily
Course will be offered only if enrolment is sufficient
Limited Registration **3438MT 100**

FRENCH LANGUAGE AND LITERATURE

125-204C CIVILISATION QUÉBÉCOISE I. (3 crédits.) Introduction à la civilisation québécoise (de 1800 à 1945). A l'aide d'oeuvres littéraires et artistiques, introduction aux différents aspects de la société québécoise.
3 mai – 31 mai
10h30 – 12h30 du lundi au vendredi
Textes: Fréchette, Louis, *Papineau,* (drame historique en 4 actes et 9 tableaux); Laberge, Albert, *La Scouine*; Ringuet, *Trente Arpents.*
Mlle Doray **BRONF 79**

125-205L CIVILISATION QUÉBÉCOISE II. (3 crédits.) Introduction à la civilisation québécoise (depuis 1945). Ce cours fait suite au cours 125-204 mais peut être pris indépendamment.
1 juin – 29 juin
8h – 10h du lundi au vendredi
Textes: Roy, Gabrielle, *Bonheur d'occasion*; Miron, Gaston, *L'homme rapaillé.*
Mlle Lafleur **BRONF 79**

125-300C FRANÇAIS COMMERCIAL. (3 crédits; Préalables: 125-200 ou 201; Test de classement le 23 et le 30 avril, entre 9h et midi (Peterson Hall).) Ce cours porte sur la langue des affaires parlée et écrite au Québec. Exercices oraux et écrits: acquisition de vocabulaire, terminologie générale; rédaction de lettres et de rapports; étude de structures grammaticales trouvées principalement dans des documents commerciaux. (Ce cours est réservé aux étudiants de la Faculté d'administration et aux étudiants en Relations Industrielles et en "Organizational Psychology" de la Faculté des Arts. Les autres étudiants de la Faculté des Arts doivent obtenir l'autorisation de leur Vice-Doyen.)
3 mai – 31 mai
13h30 – 15h30 du lundi au vendredi
Texte: Mauger et Charon, *Le français commercial* (Manuel seulement) – *Tome I.*
Cour contingenté
M. Bourdeau de Fontenay **BRONF 78**

125-343L TRADUCTION ÉLÉMENTAIRE I. (3 crédits; Préalables: Test de classement le 28 et le 31 mai, entre 9h et midi, Peterson Hall.) APPROBATION À CONFIRMER. Exercices portant sur les éléments syntaxiques et lexicaux qui présentent des problèmes de traduction simples mais fréquents. Traduction de textes variés. Admission sur examen préalable. Les étudiants qui ont suivi le cours 125-345 ne seront pas admis. Fermé aux étudiants inscrits au programme de traduction.
1 juin – 29 juin
10h30 – 12h30 du lundi au vendredi
Textes: Dictionnaires: *Robert 2, Robert-Collins; Dictionnaires des synonymes* (Larousse), *Dictionnaire analogique* (Larousse).
Cours contingenté
Mlle Cormier **BRONF 78**

125-468C QUESTIONS DE LITTÉRATURE ET DE CULTURE I. (3 crédits.) Cours à contenu variable. Été 1982: *Erotisme et littérature aux XIXe et XXe siècles.* Ce séminaire propose d'étudier l'expression amoureuse à partir de certaines oppositions (continuité-discontinuité; fantasme-réalité; échange-participation). Le langage érotique sera étudié à l'aide du dialogue amoureux dans le rapport entre sujet et objet d'amour.
3 mai – 31 mai
10h30 – 12h30 du lundi au vendredi
Textes: Zola, *La faute de l'abbé Mouret;* Proust, *Du côté de chez Swann;* Colette, *Gigi;* Eluard, *La rose publique* ou *Le temps déborde* ou *Phénix.*
Professor Caucci **BRONF 78**

GERMAN

129-202C GERMAN LANGUAGE – BEGINNERS. (6 credits.) A solid, traditional method. The stress is on oral and written comprehension and expression. (Not open to students who have taken 129-200, -201 or -203).
May 3 – June 30
10:30 – 12:30 daily
Text: Lohnes and Strothmann, *German: A Structural Approach,* W.W. Norton, 3rd ed.
Limited Registration **BRONF 602**

HISPANIC STUDIES

144-220C SPANISH ADVANCED ORAL AND WRITTEN EXPRESSION. (6 credits; Prerequisite: 144-210 or equivalent.) Second year course. Review of grammar. Practice in speaking and writing. Completion of this course admits students to senior courses. (Not open to students who have taken 144-214, -215, -216 or -217.)
May 3 – June 25
10:30 – 12:30 daily
Texts: Marvis, Lebredo, Mena, *Continuemos;* Holton, Hadlich, Gomez-Estrada, *A Spanish Review Grammar: Theory and Practice;* Coleman,

A., *Cinco Maestros;* Sender, R., *Mosen Millan.*
Limited Registration
Professors Harvey and Michalski **BRONF 695**

HISTORY

101-202L INTRODUCTION TO THE HISTORY OF CANADA. (6 credits.) This course will be a survey of the evolution of Canada, from the pre-Columbian explorations to the end of the Second World War. Social, economic, political and intellectual developments will all be considered in a general way. Special emphasis will be placed on the themes of French-English relations, regional particularism, Canadian-American relations, and the influence of technology on Canadian society. (Not open to students who have taken 101-202A or -203B.)
June 1 – July 28
10:30 – 12:30 daily **BURN 17**

ITALIAN

132-375C CINEMA AND SOCIETY IN MODERN ITALY. (3 credits; Prerequisites: 200 hours of Italian or equivalent, and permission of the Department.) This course will provide a survey of the most important trends in post-war Italian cinema seen in the context of the rapidly and dramatically evolving society of modern Italy. (Not open to students who have taken 692-354.) Given in conjunction with the Centre for Continuing Education.
May 4 – July 2
18:00 – 21:00 Tuesday and Thursday
Professor Picone **BRONF 630**

JEWISH STUDIES PROGRAM

135-319C JUDAISM AND THE OCCULT. (3 credits.) Popular and deviant elements which have been integrated into Judaism. The interaction of magic and religion will be analyzed through the study of Jewish texts from both the authoritative religious literature as well as from sources on the periphery of classical Judaism. Readings and discussions in English. (No classes will meet immediately prior to Shabbat.)
May 3 – May 28
16:00 – 18:00 daily
Text: Tractenberg, *Jewish Magic and Superstition;* plus supplementary readings.
Professor Levy **3511PL 304**

LINGUISTICS

* **104-200C/L INTRODUCTION TO THE STUDY OF LANGUAGE I.** (3 credits.) This course provides only a brief introduction to the techniques of linguistic analysis and will not place great emphasis on the formal properties of language. It is so structured as to allow students to explore various aspects of language as a human communication system, surveying such areas as bilingualism, language acquisition and many others. Modular course. An introduction to each area is presented in a handbook which is part of an instructional unit called a module. (Not open to students who have taken the sequence 104-210, -211.)
May 3 – May 31 10:30 – 12:30 daily
June 1 – June 30 10:30 – 12:30 daily
May 3 – June 30 10:30 – 12:30 daily
Mrs. Grafstein **OM 112**

* **104-201C/L INTRODUCTION TO THE STUDY OF LANGUAGE II.** (3 credits.) A continuation of 104-200. Students must complete four additional modules, selection to be made in accordance with individual needs and interests. See 104-200 for specific dates, times, classroom, etc.

* **104-202C/L INTRODUCTION TO THE STUDY OF LANGUAGE III.** (3 credits; Prerequisites: 104-200 and -201.) A continuation of -200 and -201 for non-specialist students from outside the Department of Linguistics whose program requires 12 Linguistics credits. Four modules to be completed. Selection to be made in accordance with individual needs and interests. (May not be taken for credit by Linguistics students.) See 104-200 for specific dates, times, Instructor, classroom, etc.

* **104-203C/L INTRODUCTION TO THE STUDY OF LANGUAGE IV.** (3 credits; Prerequisites: 104-200 and -201; Corequisite: 104-202.) See 104-202 for course description and 104-200 for specific dates, times, Instructor, classroom, etc.

* *Please note:*
These four Linguistics courses are offered in a "modular" format. If the course is started in May, it should have a letter designation of "C" (e.g. 104-200C); if the course is started in June, the letter designation should be 'L'. There are no regular class meetings or formal lectures as such, but there is a pool of "independent study" units and a "resource center" where tutorial guidance is available at the hours assigned for the course. An introductory handbook which describes the courses in detail is available in the Bookstore.

PHILOSOPHY

107-210C INTRODUCTION TO DEDUCTIVE LOGIC. (3 credits.) Propositional and predicate logic: formalization of arguments, truth tables, natural deduction and related topics. (Not open to students who have taken or are taking 189-318, -489, -490.)

May 3 – May 31
10:30 – 12:30 daily
Text: Leblanc and Wisdom, *Introduction to Deductive Logic.*
Mr. Hawthorn **BRONF 551**

107-330L PHILOSOPHY AND LITERATURE. (3 credits.) Relations between literature and morality and the classic novel as a moral tool.
June 1 – June 28
10:30 – 12:30 daily
Dr. Govitrikar **BRONF 551**

107-334L ETHICS I. (3 credits; Prerequisite: One course in Philosophy.) Topic: The moral self and the virtues.
June 1 – June 28
13:30 – 15:30 daily **BRONF 551**

POLITICAL SCIENCE

160-245C INTERNATIONAL SYSTEM. (3 credits.) This course will examine the evolution of the modern international system, comparing the traditional European multipolar system, the post World War II system and the emerging global system of the 1980's. Focus will be primarily on the capabilities, policies and relationships of the major powers.
May 3 – May 28
15:00 – 17:00 daily
Professor Noble **ARTS 210**

160-327L THE PRINCIPLES OF PUBLIC ADMINISTRATION. (3 credits.) An outline of the basic concepts employed in public administration will include organizational structure and behaviour, the concept of management and personnel development, the decision-making processes and the problems of change and innovation. The subject matter will be general although references will be made to Canadian examples.
June 1 — June 28
13:30 – 15:30 daily
Professor Nef **ARTS W20**

160-365L DEMOCRATIC THEORY. (3 credits; Prerequisite: 160-231.) A series of lectures and seminars on democratic theory with special reference to participation. Oral presentations, discussion and essays required.
June 1 – June 28
8:00 – 10:00 daily
Professor Shingler **ARTS 265**

160-462C SOVIET MARXISM. (3 credits; Prerequisite: 160-231 or 160-329 or permission of Instructor.) AWAITING APPROVAL. A critical and historical examination of key aspects of the writings of Plekhanor, Lenin, the Mensheviks, Luxemburg, Trotsky, the Left Opposition, Bukharin, Stalin, as well as post-Stalin developments in Soviet ideology, including the dissident neo-Marxists, and their relationship to Marx's thought. Topics include: theories and strategies of revolution, imperialism, the nature and role of the state and of political action, the transition to socialism, the nature of the Soviet state.
May 3 – May 28
10:30 – 12:30 daily
Professor Wootton **ARTS 210**

SOCIOLOGY

166-222C URBAN SOCIOLOGY. (3 credits.) The aims of this course are 1) to provide an understanding of the process of urbanization in a historical and comparative context; 2) to evaluate the effects of urbanization on several social institutions including the family and the community, and 3) to study Canadian urban problems in comparative perspective.
May 3 – May 28
10:30 – 12:30 daily
Text: Wilson, R.A. and Schultz, D.A., *Irban Sociology,* Prentice-Hall, 1978.
Ms LeCavalier **ARTS 255**

166-247C FAMILY AND KINSHIP. (3 credits.) Family-related institutions which have been proposed as cultural universals. Discussion of the nuclear family and some proposed alternatives, the incest taboo, the division of labour by sex and patriarchy. Selected familial processes, including interpersonal relations between family members, mate selection, romantic love and the regulation of sexuality.
May 3 – May 31
10:30 – 12:30 daily
Texts: Lasch, Christopher, *Haven in a Heartless World*, Harper Row; plus two additional texts T.B.A.
Mr. Sullivan **ARTS 150**

166-350C ELEMENTARY STATISTICS IN SOCIOLOGY AND ANTHROPOLOGY. (3 credits.) The basic concepts and techniques of statistical analysis applied in sociological and anthropological research problems. Topics include: frequency distributions, measures of central tendency and variation, simple correlation methods, sampling, tests of significance and non-parametric statistics. (Not open to students who have taken Psychology 204-204 or -305 or Economics 154-317.)
May 3 – May 28
10:30 – 12:30 daily
Text: Loether, Herman J., and McTavish, Donald G., *Descriptive and Inferential Statistics: An Introduction*, 2nd ed., Allyn and Bacon, 1980.
Limited Registration
Professor Masi **ARTS 260**

SCHOOL OF SOCIAL WORK

Please contact the School of Social Work for specific dates, times and classroom numbers.

407-255C SOCIAL WORK PRACTICUM. (3 credits.) An introductory field experience to provide U1 students with the opportunity to observe social work practice, to participate in the work of a social organization, to assume responsibility for a limited practice assignment, and to conduct critical analyses of their field experience through conference discussions and individual tutorials. (Restricted to Social Work students.)
Starting Date: May 10
Times: T.B.A.
Limited Registration

407-270C INTRODUCTION TO SOCIAL WORK RESEARCH. (3 credits; Prerequisite: Permission of Instructor.) This course is intended to help students make effective use of published research reports and agency statistics, and to show them how to conduct simple research projects. It covers problem formulation, research design, data collection, analysis and interpretation, use of computer terminal and report writing. Modular format.
Starting Date: May 10
Times: T.B.A.
Limited Registration
Professor Duder

407-352C PUBLIC SOCIAL SERVICES IN CANADA. (3 credits; Prerequisite: Permission of Instructor.) An introduction to the programs of public social services in effect in Canada in the fields of income, housing and health. The course seeks to acquaint students with the characteristics of these programs, and with the policy issues which surround them and to enhance the students' ability to evaluate the functioning of the programs. Modular course.
Starting Date: May 10
Times: T.B.A.
Limited Registration
Professor McGilly

407-353C INTRODUCTION TO SOCIAL WORK PRACTICE. (6 credits.) Introduction to the principles and practice of social work. Approaches to social problem identification and analysis. The role of the social worker as an agent of change or of social control. Elements of working with individual groups and communities. Laboratory periods will permit the application of course content to practice. (Restricted to Social Work students.)
Starting Date: May 10
Times: T.B.A.
Limited Registration
Professor Hopmeyer

407-485C TUTORIAL IN SOCIAL WORK PRACTICE. (3 credits; Prerequisite: Permission of Instructor.) An individual or small group tutorial in which students will work independently in conjunction with the Instructor. The student will undertake a major project related to the area of specialization. (To be taken only with the consent of the Director.)
Starting Date: May 10
Times: T.B.A.
Limited Registration

407-486C TUTORIAL IN SOCIAL WORK POLICY. (3 credits; Prerequisite: Permission of Instructor.) An individual or small group tutorial in which students will work independently in conjunction with the Instructor. The student will undertake a major project related to the area of specialization. (To be taken only with the consent of the Director.)
Starting Date: May 10
Times: T.B.A.
Limited Registration

SOCIAL WORK (FACULTY OF GRADUATE STUDIES AND RESEARCH)

407-650C FIELD WORK PRACTICUM. (Half Course; Prerequisite: Open to M.S.W. students only; a required course.) Supervised educational experience in social work practice, integrating practice with theoretical knowledge characteristic of the specialized field. Individual and group instruction. This course involves approximately 100 hours of work in a field setting.
May 3 – July 23

407-651C FIELD WORK PRACTICUM. (Half Course; Prerequisite: Open to M.S.W. students only; a required course.) See 407-650C. This course involves approximately 100 hours of work in a field setting.
May 3 – July 23

407-660C FIELD WORK PRACTICUM. (Full Course; Prerequisite: Open to M.S.W. students only.) See 407-650C. This course involves approximately 200 hours of work in a field setting.
May 3 – July 23

407-690C RESEARCH PROJECT. (Double Course; Prerequisite: Open to M.S.W. students only; a required course.) Students pursue and/or complete research related to their independent study project. The 12-week period may vary. Each student and study supervisor are expected to arrive at a mutually satisfactory 12-week schedule of work and consultation.
May 3 – July 23 (approximately)

FACULTY OF SCIENCE

BIOLOGY

177-373C BIOMETRY. (3 credits; Prerequisite: 189-112 or equivalent.) Elementary statistical methods for testing hypotheses and designing experiments in biology. Least squares procedures for fitting models in regression and analysis of variance. Students who have taken, or are taking, certain equivalent statistical courses elsewhere in the University, for example 204-204, may not take this course; a list of these equivalent courses is available in the Biology Department's Handbook.
May 3 – May 28
10:30 – 12:30 daily
Labs: 2 hours each afternoon
Text: Mather, *Statistical Analysis in Biology,* Methuen, 1970.
Limited Registration **STBIO N2/2A**
Dr. Fieldes **STBIO N4/19**

CHEMISTRY

180-212C INTRODUCTORY ORGANIC CHEMISTRY I. (4 credits; Prerequisites: 180-110 and 180-120 or CEGEP 202-101 and 202-201 or equivalent.) A survey of reactions of aliphatic and aromatic compounds including modern concepts of bonding, mechanisms, conformational analysis and stereochemistry. Laboratory with illustrative experiments. (Students may not begin this course after its second class.) Course load restrictions are modified for this four-credit course.
May 3 – May 31
8:00 – 10:00 daily
Labs: T.B.A.
Texts: Morrison and Boyd, *Organic Chemistry,* Allyn and Bacon, 1972, and/or Ternay, A., *Contemporary Organic Chemistry,* Saunders, 1975.
Professor Farrell **OM 10**

180-213C INTRODUCTORY PHYSICAL CHEMISTRY I. (3 credits; Prerequisites: Chemistry—180-120 or CEGEP 202-101 and -201 or equivalent; Mathematics— 189-120 and -121 or equivalent.) Gas laws, kinetic theory. First law of thermodynamics, enthalpy, thermochemistry, bond energies. Second law of thermodynamics; the entropy and the free energy functions. Chemical and thermodynamic equilibrium states. Phase rule. Colligative properties of ideal solutions. Selected special topics which may include chemical kinetics, electrochemistry and others. (Not open to students who have taken 180-203 or -204.)
May 3 – May 31
10:30 – 12:30 daily
Text: Barrow, J.M., *Physical Chemistry,* 3rd ed., McGraw-Hill.
Pre-sessional readings: Lecture notes will be available for sale immediately prior to starting date.
Professor Galley **OM 10**

180-222T INTRODUCTORY ORGANIC CHEMISTRY II. (4 credits; Prerequisite: 180-212 or equivalent.) Modern spectroscopic techniques for structure determination. The chemistry of alkyl halides, alcohols, ethers, carbonyl compounds and amines with special attention to mechanistic aspects. Special topics. Laboratory with illustrative experiments. (Students may not begin this course after its second class.) Course load restrictions are modified for this four-credit course.
July 5 – August 2
8:00 – 10:00 daily
Labs: T.B.A.
Text: Ternay, A., *Contemporary Organic Chemistry,* Saunders, 1975.
Dr. Schwarcz **OM 10**

180-607T CHEMISTRY FOR TEACHERS: SPECIAL TOPICS II. (Half course; Prerequisite: Enrolment in an M.Ed. program.) Various topics in chemistry of interest to teachers will be presented. The course content can vary from year to year.
July 5 – August 2
10:30 – 12:30 daily
Limited Registration **OM 10**

COMPUTER SCIENCE

308-210C COMPUTER STRUCTURE AND ASSEMBLY LANGUAGE PROGRAMMING. (3 credits; Prerequisite: 308-200 or equivalent.) Computer structure, machine instruction execution, addressing techniques and digital representation of data. Symbolic coding and assembly systems, macro definition, program segmentation and linkage. (Not open to students who have taken 308-273.)
May 3 – May 31
10:30 – 13:00 daily
Limited Registration **BURN 45**

308-315C INTRODUCTION TO INFORMATION STRUCTURES. (3 credits; Prerequisites: 308-210 or -273; *students with a high grade in 308-200 may be permitted to register.)* Introduction to basic types of data structures, their theoretical properties and some of their applications. Contents: storage of arrays, applications to special matrices and scientific computation; queues and stacks, applications to compiler writing; sorting and searching; introduction to list processing and symbolic manipulation. (Not open to students who have taken 308-317.)
May 3 – May 31
13:30 – 16:00 daily
Limited Registration **BURN 45**

MATHEMATICS

189-121C CALCULUS II. (3 credits; Prerequisite: 189-120.) The definite integral. Techniques of integration. Applications. Introduction to sequences and series.
May 3 – May 28
8:30 – 10:30 daily
Text: Larson and Hostetler, *Calculus with Analytic Geometry,* Heath.
Professor Rigelhof **ENGMC 210**

189-203C PRINCIPLES AND METHODOLOGY OF STATISTICS I. (3 credits.) Typical examples of statistical data and the use of graphical means to summarize the data. Some basic distributions arising in the natural and behavioural sciences. The logical meaning of a test of significance with applications to single observations, sums, differences, and means. The analysis of categorical and frequency data. The interrelation of two variables. The use of correlation coefficients as exploratory tools. (This course is intended for students in all disciplines and is not open to students in Major Mathematics. Not open to students who have taken 189-324. No calculus prerequisites.) NOTE: Students who successfully complete this course need not take for credit certain other introductory statistics courses offered elsewhere in the University. A list of these courses is available in the Mathematics Department.
May 3 – May 28
10:30 – 12:30 daily
Text: Mendenhall, *Introduction to Probability and Statistics,* 5th ed., Duxbury.
Professor Anderson **BURN 39**

189-221L VECTORS, MATRICES and ANALYTICAL GEOMETRY. (3 credits.) Matrices, determinants, systems of linear equations and linear dependence. Vectors, inner products and cross products, lines and planes in three dimensions and conics. (Not open to students who have taken CEGEP course 201-105.)
June 1 – June 23
10:30 – 13:00 MTWTh
Text: Grossman, *Elementary Linear Algebra,* Wadsworth.
Professor Roth **BURN 39**

189-222T CALCULUS III. (3 credits; Prerequisite: 189-121 and 189-221 or equivalent.) Taylor series, Taylor's theorem in one and several variables. Partial differentiation, directional derivative. Extrema of functions of 2 or 3 variables. Parametric curves and arc length. Polar and spherical coordinates. Multiple integrals.
July 5 – July 29
10:30 – 12:30 daily
Text: Larson and Hostetler, *Calculus with Analytic Geometry,* Heath. **BURN 39**

189-245L LINEAR ALGEBRA I. (3 credits; Prerequisite 189-221 or equivalent.) Review of matrix algebra, systems of linear equations, and determinants. Subspaces of R^n. Rank, bases and dimension. Eigenvectors and eigenvalues, diagonalization of matrices. Orthogonal matrices. Quadratic forms, positive definiteness and classification of central quadrics. (Not open to students who have taken 189-223, -224, -234 or -247.)
June 1 – June 28
13:30 – 16:00 MWThF
Text: Lipschutz, *Linear Algebra,* Schaum.
Professor Connell **ENGMC 122**

189-314L ADVANCED CALCULUS. (3 credits; Prerequisite: 189-222.) Constrained maxima and minima. Jacobians. Multiple integration. Line and surface integrals. Theorems of Green, Stokes and Gauss. Introduction to elliptic integrals. (Not open to students who have taken 189-248.)
June 1 – June 28
10:30 – 13:00 MTWTh
Text: Marsden and Tromba, *Vector Calculus,* Freeman.
Professor Gowrisankaran **ENGMC 122**

189-315T DIFFERENTIAL EQUATIONS I. (3 credits; Prerequisite: 189-222.) First order ordinary differential equations. Linear equations with constant coefficients, Laplace transform. Series solutions. (Not open to students who have taken 189-325.)
July 5 – July 29
13:30 – 15:30 daily
Text: Boyce and Di Prima, *Elementary Differential Equations and Boundary Value Problems,* Wiley.
Professor Lawruk **BURN 39**

PSYCHOLOGY

204-204C INTRODUCTION TO PSYCHOLOGICAL STATISTICS. (3 credits.) The statistical analysis of psychological data; frequency distributions; graphic representation; measures of central tendency and variability; elementary sampling theory and tests of significance.
NOTE: Students who have taken certain equivalent courses elsewhere in the University may not take this course. Please consult the department for equivalent courses.
May 3 – May 28
10:30 – 12:30 daily
Text: Ferguson, G.A., *Statistical Analysis in Psychology and Education,* McGraw-Hill, 1981.
Mrs. Amsel **STBIO W2/3A**

204-302T PERCEPTION I. (3 credits; Prerequisite: Full course in introductory psychology.) Perception is the organization of sensory input into a representation of the environment. Topics discussed will be among the following: coding of

colour, depth, size; perception and the moving observer; perceptual development; and perceptual constancies.
July 5 – July 30
10:30 – 12:30 daily
Dr. Brussell **STBIO N7/1**

204-305L STATISTICS FOR EXPERIMENTAL DESIGN. (3 credits; Prerequisite: 204-204 or equivalent.) An introduction to the design and analysis of experiments, including analysis of variance, multiple comparisons and non-parametric statistics.
June 1 — June 28
10:30 – 12:30 daily
Text: Ferguson, G.A., *Statistical Analysis in Psychology and Education,* McGraw-Hill, 1981
Mrs. Amsel **STBIO W2/3A**

204-429C HEALTH PSYCHOLOGY. (3 credits; Prerequisite: 204-337 or, in the case of advanced undergraduates, 204-201 or equivalent, and permission of Instructor.) A survey of health psychology and a review of the psychosocial and psychophysiological factors leading to the development and maintenance of physical illness and health. Major assessment and intervention strategies will be covered and a review of such specific problem areas as cardiovascular disease risk reduction, coronary prone behaviour, headache and chronic pain will be undertaken. Both theoretical and clinical issues will be emphasized.
May 3 – May 28
10:30 – 12:30 daily
Professor Feuerstein **STBIO N2/2D**

FACULTY OF AGRICULTURE

Please Note:

Registration at Macdonald Campus for summer Agriculture courses will be permitted any time up to and including the first day of lectures of each course. Registration for these courses will be at the Registrar's Office, Macdonald Campus of McGill University, Ste. Anne de Bellevue, Québec.

These Agriculture courses will be offered at Macdonald Campus, which is located 32 kilometers west of McGill (Montreal) in Ste. Anne de Bellevue. There will be residence space available on the Macdonald Campus. Please contact the Residence Business Office, Macdonald Campus, Ste. Anne de Bellevue, Québec H0A 1C0, for residence information.

The registration procedure is in all ways identical to that outlined in the registration section of this announcement. Students from other faculties wishing to attend one or more of the courses offered by the Faculty of Agriculture may, after securing the appropriate authorization, register in the Summer Session Office if it is more convenient for them.

AGRICULTURAL ECONOMICS

334-200C PRINCIPLES OF ECONOMICS I. (3 credits.) The field of economics as it relates to the activities of individual consumers, firms and organizations. Emphasis throughout is on the application of economic principles and concepts to everyday decision-making and to the analysis of current economic issues.
May 3 – May 28
10:30 – 12:30 daily **MAC R3-032**

AGRICULTURAL ENGINEERING

336-214C SURVEYING. (2 credits; Prerequisite: Trigonometry—surveying puts trigonometry to practical application.) Use of engineer's tape, level, transit, plane table, hand level and compass for land measurement, differential levelling, topographic mapping, surveying computations and preparation of plans. (The course operates with a lecture each morning followed by direct practice with the surveying instruments in the field. Further lectures and map work on rainy days.)
May 3 – May 14
9:00 – 17:00 daily
Text: Breed, Charles B., *Surveying,* 2nd ed., John Wiley and Sons.
Limited Registration
Mr. Perraton **MAC AE2**

336-606C LAND DRAINAGE ENGINEERING. (Half course; Prerequisites: Hydrology, general soil science, surveying.) Land drainage in relation to soils and crops. Design of regional drainage systems, stability of ditches, ice problems. Design of subsurface drainage systems, theories of flow into drain tubes. Hydraulics of wells. Drainage of irrigated lands. Water table control. Open to senior undergraduates with CGPA of 2.8 or more. (Course offered in May for best field condition examples of drainage.)
May 3 – May 21
Lectures: 9:00 – 11:30 daily
Day field trips T.B.A.
Texts: Van Schilfgaarde, S., Ed., *Drainage for Agriculture,* American Society of Agronomy, 1977; Luthin, J.N., *Drainage Engineering,* Freiger Press, 1973.
Professors Broughton and Jutras **BARTON 1-015**

RENEWABLE RESOURCES

375-410C WILDLIFE ECOLOGY. (3 credits.) Principles of animal ecology as they relate particularly to North American birds and mammals. Topics covered include species distribution, population dynamics, predation, geographic speciation, habitat selection and social behaviour.
May 3 – May 28
Lectures: 10:30 – 13:00 daily
Field trips T.B.A.
Professor Seymour **MAC R2-042**

FACULTY OF ENGINEERING

CHEMICAL ENGINEERING

302-381C POLYMER TECHNOLOGY. (3 credits.) Principles and practical aspects of the design and fabrication of thermoplastic and thermosetting polymeric materials. Classes of materials, properties, processing (casting, compression and injection molding, extrusion, thermoforming, reinforced molding, etc.), finishing. In Summer of 1982 this course will be open to Faculty of Education students only, by special arrangement.
Enrolment will be limited and early notification of intent to take the course is requested.
April 12 – June 18
17:00 – 20:00 Tuesday and Thursday
Texts: Richardson, T.A., *Modern Industrial Plastics,* Bobbs-Merrill, Indianapolis, 1979; Hess, H.L., and Plastics Education Foundation, *Plastics Labcratory Procedures,* Bobbs-Merrill, Indianapolis, 1980.
Limited Registration
Professor Charlier **ENGMC 122**

302-653C ADVANCED PROCESS DESIGN. (Half Course). Advanced techniques and concepts in the design of chemical processing plants and equipment. Open to graduate students in Chemical Engineering.
May 3 – June 15
16:00 – 18:00 Tuesday and Thursday
Text: Rudd and Watson, *Strategy of Process Design.*
Dr. Cooke **ENGMC 226**

CHEMISTRY

180-234T TOPICS IN ORGANIC CHEMISTRY. (3 credits; Prerequisite: 180-212 or equivalent.) For Chemical Engineering students only. Modern spectroscopic techniques for structure determination. The chemistry of alkyl halides, alcohols, ethers, carbonyl compounds and amines with special attention to mechanistic aspects. Special topics.
July 5 – August 2
8:00 – 10:00 daily
Text: Ternay, A., *Contemporary Organic Chemistry,* Saunders, 1975.
Dr. Schwarcz **OM 10**

ELECTRICAL ENGINEERING

* **304-291C ELECTRICAL LABORATORY I.** (3 credits; Prerequisite: 304-231 or 304-236.) Operating principles and limitations of basic electrical and electronic laboratory measurements and techniques including meter, oscilloscopes, generators and bridges. Permission of Department required. Each student is expected to work from 10:00 to 17:00 five days of the week.
May 3 – June 11
Lectures: 10:00 – 11:00 daily
Labs: T.B.A.
Limited Registration **ENGMC 213**
Professor Lee **ENGMC 001**

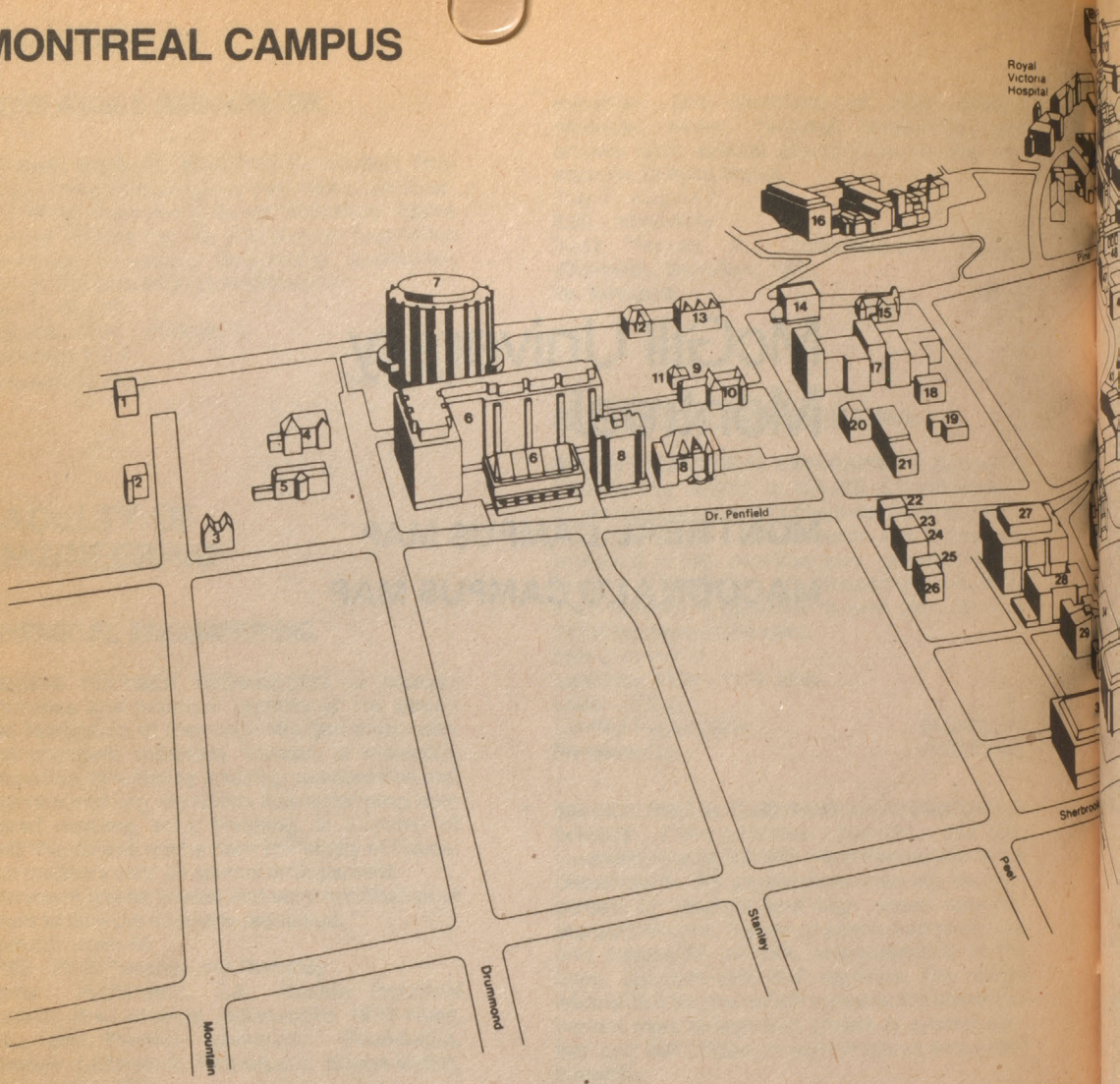
* **304-391C DIGITAL ELECTRONICS LABORATORY.** (2 credits; Prerequisites: 304-291, 304-322, —recommended 304-333—and Permission of the Department.) Six experiments covering the properties of medium and high speed logic integrated circuits, design of simple combinational and sequential circuits, characteristics of flip flops, counters and shift registers. The course ends with a project which exposes the student to control logic design and pitfalls in synchronization and the design of asynchronous sequential circuits.
May 3 – June 4
Lectures: 12:00 – 13:00 daily
Labs: 9:00 – 12:00 daily
14:00 – 17:00 daily
Limited Registration **ENGMC 210**
Professor Rumin **ENGMC 747**

* **304-492C DIGITAL SYSTEM DESIGN PROJECT.** (3 credits; Prerequisite: 304-391.) A single major project supervised by an interested member of staff involving the design of hardware and/or software in areas such as interfacing or special purpose computer design, using effective combinations of MSI, LSI and microprocessors. The project is designed to provide the student with experience in program management, debugging and documentation. Permission of Department required.
May 3 – June 11
10:00 – 17:00 daily
Limited Registration **ENGMC 734**

McGill University
Montreal

MONTREAL CAMPUS MAP
MACDONALD CAMPUS MAP

MONTREAL CAMPUS

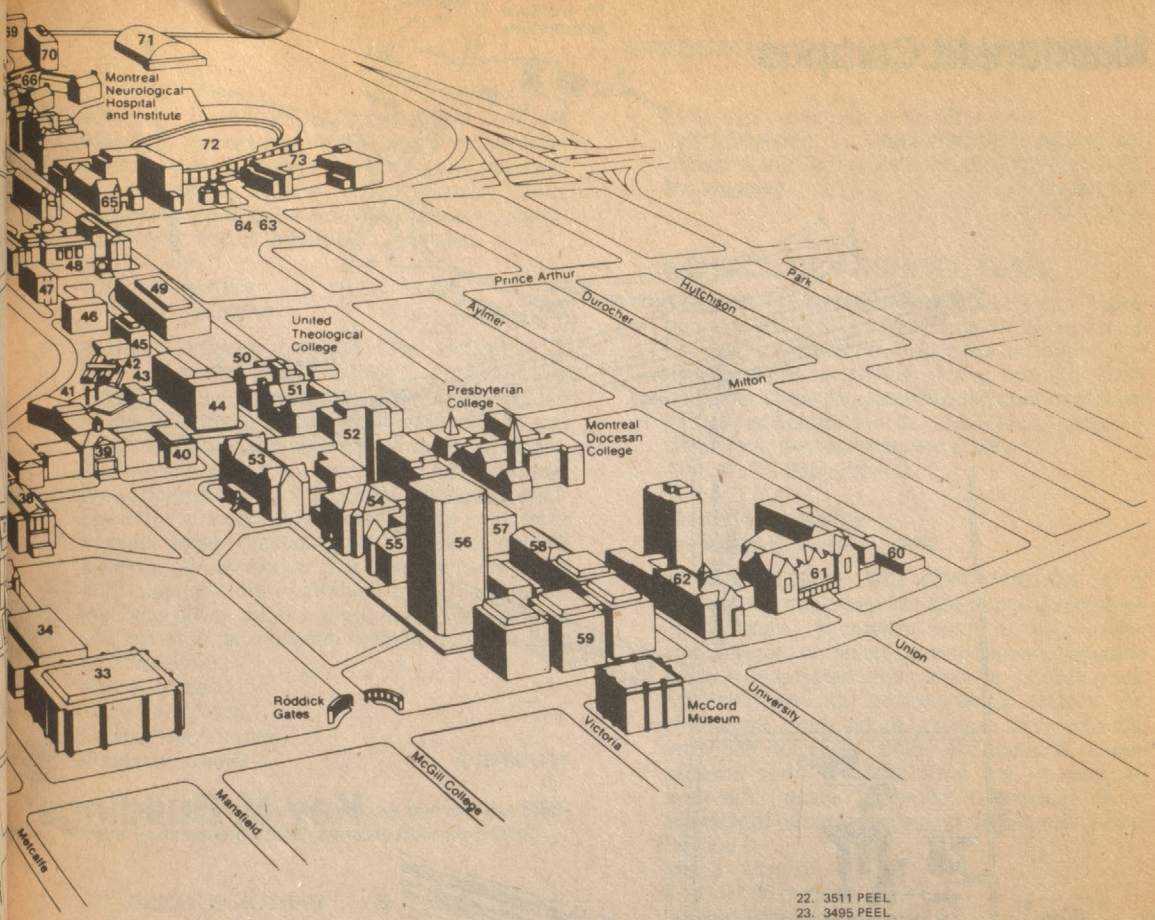


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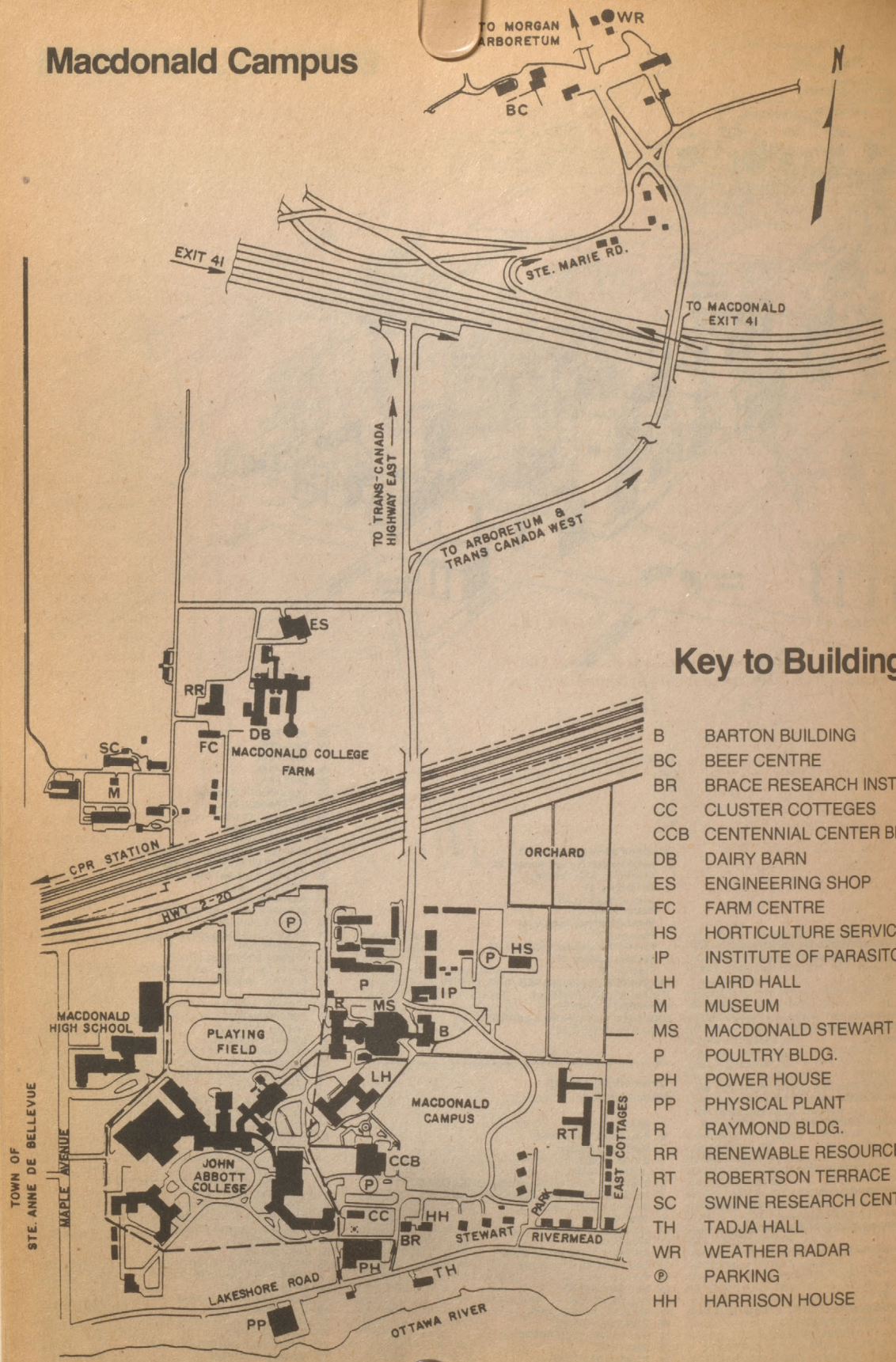
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12. CHARLES MEREDITH HOUSE
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14. PURVIS HALL
15. DUGGAN HOUSE
16. ALLAN MEMORIAL INSTITUTE
17. EDUCATION BUILDING
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34. REDPATH LIBRARY BUILDING
35. REDPATH HALL
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58. PULP & PAPER INSTITUTE
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61. STRATHCONA MUSIC BUILDING & POLLACK CONCERT HALL
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72. MOLSON STADIUM
73. SIR ARTHUR CURRIE MEMORIAL GYMNASIUM

Macdonald Campus



Key to Buildings

B	BARTON BUILDING
BC	BEEF CENTRE
BR	BRACE RESEARCH INSTITUTE
CC	CLUSTER COTTEGES
CCB	CENTENNIAL CENTER BLDG.
DB	DAIRY BARN
ES	ENGINEERING SHOP
FC	FARM CENTRE
HS	HORTICULTURE SERVICES
IP	INSTITUTE OF PARASITOLOGY
LH	LAIRD HALL
M	MUSEUM
MS	MACDONALD STEWART BLDG.
P	POULTRY BLDG.
PH	POWER HOUSE
PP	PHYSICAL PLANT
R	RAYMOND BLDG.
RR	RENEWABLE RESOURCES
RT	ROBERTSON TERRACE
SC	SWINE RESEARCH CENTRE
TH	TADJA HALL
WR	WEATHER RADAR
Ⓟ	PARKING
HH	HARRISON HOUSE

* **304-494C ELECTRICAL ENGINEERING DESIGN PROJECT.** (3 credits; Prerequisite: A 300-level laboratory depending on project area.) A series of experiments or a term project covering some aspects of a particular area of electrical engineering. Permission of Department required.
May 3 – June 11
10:00 – 17:00 daily
Limited Registration
ENGMC 734

* **304-496C POWER LABORATORY PROJECT.** (3 credits; Prerequisite: 304-396.) A laboratory course whose primary aim will be to expose students to the interconnection of machines and power electronics to create engineering systems. Such systems will in some cases be under real time computer control. Students will have the opportunity to select their experimental work from diverse areas including D.C. speed control systems, synchronous machine characteristics and applications, variable speed induction machine drives, high voltage testing techniques and transformer systems. Permission of Department required.
May 3 – June 11
10:00 – 17:00 daily
Limited Registration
Professor Lowther **ENGMC 001**

* **For additional information please consult the Electrical Engineering Undergraduate Bulletin Board.**

MECHANICAL ENGINEERING

305-260C MACHINE TOOL LABORATORY. (2 credits.) Principal metal cutting machine tools; their scope and operating functions. Related measuring instruments. Laboratory exercises with extensive hands-on experience with machine tools and metrological instrumentation. Manufacture of work pieces from formal operations lists. Generation of operations lists from working drawings or equivalent specifications. Comparison of prototype and series production methods, including the consideration of tooling aspects. Introduction to numerically controlled machine tools. Permission of Instructor required.
May 3 – May 14
9:00 – 16:00 Monday through Saturday
Limited Registration
Mr. Muehling and Staff **ENGMC 51**

305-261C MEASUREMENT LABORATORY. (2 credits.) Basic experimental laboratory measurements, such as measurement of temperature, pressure, force, torque, small time intervals, velocity, acceleration. Criteria for selection of instruments.
May 17 – May 29
Lectures: 10:00 – 12:00 Monday through Saturday, including Victoria Day.
Labs: every other day in the afternoon
Text: Doebelin, E., *Measurement Systems Application and Design,* 2nd, ed., McGraw-Hill, 1975.
Mr. Vroomen **ENGMC 122**
ENGMC 261B

SCHOOL OF ARCHITECTURE

301-324T SKETCHING SCHOOL I. (1 credit: Prerequisites: 301-218 and permission of Instructor.) A ten-day supervised field trip in the late summer to sketch places or things having specific visual characteristics. Students are required to include Sketching School I in the B.Sc.(Arch.) program. (Open to Architecture students only.)
August 27 – September 3
Times: T.B.A.
Limited Registration
Professors Covo and Tondino

301-410C DESIGN AND CONSTRUCTION V. (6 credits; Prerequisites: 301-304 and/or permission of Instructor.) A detailed study of the function and structure of the urban environment, including surveys of selected urban areas by recording and analysing specific environmental factors. Architectural and urban design with specific reference to their social implications. Urban renewal and rehabilitation by means of systematic design methods. Techniques of instructional publicity including documentary film-making.
May 3 – May 31
9:00 – 17:00 daily
Limited Registration
Professors Anderson and Covo **ENGMC 206**

301-430T SKETCHING SCHOOL II. (1 credit; Prerequisites: 301-324 and permission of Instructor.) Continuation of Sketching School I; a ten-day supervised field trip in the late summer to sketch places or things having specific visual characteristics. Students are required to include Sketching School II in the B.Arch. program. (Open to Architecture students only.)
August 27 – September 3
Times: T.B.A.
Limited Registration
Professors Covo and Tondino

GRADUATE SCHOOL OF LIBRARY SCIENCE

405-614C PUBLIC LIBRARIES. (Half course.) The history, organization and development of public libraries with attention to current practices and problems. Emphasis on the function of the public library in the community, its social role and its governmental environment. Focus on Canadian public libraries.
May 3 – May 20
9:30 – 12:30 daily
Mr. Parkhill **MCLIB MS-42**

405-652T COMMUNICATION MEDIA AND THE LIBRARY. (Half course.) The intention of the course is to use a model of the communication process to describe the culture and society that is the context of libraries; to analyze the interaction process between the library and the community; to analyze and improve library operations by prediction based on the model.
July 5 – July 22
9:30 – 12:30 daily
Professor Blum **MCLIB MS-42**

FACULTY OF MANAGEMENT

Please consult the notice boards in the Bronfman Building for Faculty of Management classroom numbers.

271-312C FINANCIAL ACCOUNTING II. (3 credits; Prerequisite: 271-311.) A continuation of Financial Accounting I, examining problems of liabilities and owner's equity.
May 3 – June 21
18:00 – 21:00 Monday and Thursday
Limited Registration
Professor Marshall

273-332C COMPUTER BASED INFORMATION SYSTEMS. (3 credits; Prerequisites: 280-211 strongly recommended and 280-331 or equivalent.) Methodology, techniques and components of systems design and programming, with emphasis on management information systems.
May 4 – June 22
18:00 – 21:00 Tuesday and Thursday
Limited Registration
Mr. Miller

273-332T COMPUTER BASED INFORMATION SYSTEMS. (3 credits; Prerequisites: 280-211 strongly recommended and 280-331 or equivalent.) See 273-332C.
July 6 – August 19
18:00 – 21:00 Tuesday and Thursday
Limited Registration

278-384C BUSINESS LAW I. (3 credits.) An introduction to the study of law and legal process, including a review of sources of law, court system, and organization and classifications of law. A brief summary of procedural laws as they may affect business transactions, rules of private international law. A study of general principles of contract, protection of creditors, and property law. A study of various forms of guarantees, such as privileges, hypothecs and commercial pledges.
May 4 – June 22
18:00 – 21:00 Tuesday and Thursday
Limited Registration
Mr. Kaufer

278-388T BUSINESS LAW II. (3 credits; Prerequisite: 278-384.) A study of special contracts, such as sales, lease, mandate and loan. A study of business organizations, government legislation, the impact on business and marketing, principally as a result of the combined investigation legislation and consumer protection legislation. A brief review of principles in bankruptcy, bills of exchange, and insurance.
July 6 – August 19
18:00 – 21:00 Tuesday and Thursday
Limited Registration
Mr. Atlas

280-211C ACCOUNTING I. (3 credits.) An introduction to financial accounting. The principles of financial accounting are presented, beginning with the fundamentals of recording accounting transactions, and proceeding through all components of financial statements. Considerable emphasis is given to conceptual matters involved in financial reporting, such as problems with historical costs, depreciation, and other items of current concern in financial accounting.
All sections limited registration.
May 3 – June 21, **Section 1**
18:00 – 21:00 Monday and Wednesday
May 4 – June 22, **Section 2**
18:00 – 21:00 Tuesday and Thursday
May 4 – June 22, **Section 3**
18:00 – 21:00 Tuesday and Thursday

280-211T ACCOUNTING I. (3 credits.) See 280-211C. All sections limited registration.
July 5 – August 18, **Section 1**
18:00 – 21:00 Monday and Wednesday
July 6 – August 19, **Section 2**
18:00 – 21:00 Tuesday and Thursday
July 5 – August 18, **Section 3**
18:00 – 21:00 Monday and Wednesday

280-222C ORGANIZATIONAL BEHAVIOUR. (3 credits; Prerequisite: 280-221.) The social psychology of organizations: individual motivation and communication style, group dynamics as related to problem solving and decision making in the work place and a complex system as they relate to leadership style; work structuring and the larger environment. The course shows the continual interdependence of individual, group and organization task and structure.
May 3 – June 21, **Section 1** (Lecture Format)
18:00 – 21:00, Monday and Wednesday
Professor Jamal
May 4 – June 15, **Section 2** (Modular Format)
18:00 – 21:00, Tuesday and Thursday
Limited Registration (both sections)

280-222T ORGANIZATIONAL BEHAVIOUR. (3 credits; Prerequisite: 280-221.) See 280-222C. Both sections are limited registration.
July 5 – August 16, **Section 1** (Modular Format)
18:00 – 21:00, Monday and Wednesday

July 6 – August 17, **Section 2** (Modular Format)
18:00 – 21:00, Tuesday and Thursday

280-271C STATISTICS I. (3 credits; Prerequisite: Six credits in Calculus.) The course introduces statistical concepts and methodology, demonstrates their application to management problems, and constitutes a foundation for further study in the subject. Topics include: variables, descriptive statistics, probability theory, random important sampling and discrete and continuous probability distributions, sampling distributions, interval estimation and index numbers.
May 3 – May 21
9:00 – 12:00 daily
Limited Registration

280-272C STATISTICS II. (3 credits; Prerequisite: 280-271.) Hypothesis testing and estimation, sampling procedures, nonparametric procedures, goodness-of-fit tests, analysis of variance, simple and multiple regression analysis, time series.
May 25 – June 14
9:00 – 12:00 daily
Professor B. Smith

280-323C ORGANIZATIONAL POLICY. (3 credits; Prerequisite: Open to U3 B. Com. students only.) The course focuses on the primary functions of general management, particularly the formation of a corporate strategy that relates the company's opportunities to its resources, competence, and leadership style. It also involves developing a system for measuring organization effectiveness. Limited registration in both sections.
May 3 – June 16, **Section 1**
18:00 – 21:00 Monday and Wednesday
Professor Hardy
May 4 – June 15, **Section 2**
18:00 – 21:00 Tuesday and Thursday
Professor Hafsi

280-323T ORGANIZATIONAL POLICY. (3 credits; Prerequisite: Open to U3 B. Com. students only.) See 280-323C.
July 5 – August 16
18:00 – 21:00 Monday and Wednesday
Limited Registration
Professor Hardy

280-331C MANAGEMENT INFORMATION SYSTEMS I. (3 credits.) This course provides an introduction to computer systems and program flowcharting. Specific emphasis is placed on developing the ability to program (in FORTRAN) and utilize the resources available on the McGill timesharing system. Problems of implementing computer systems in the organization are discussed.
NOTE: Students taking this course should expect to spend many evenings, outside of class time, in the computer terminal room working on their assignments in debugging, keypunching, etc.
May 5 – August 4
18:00 – 21:00 Wednesday
Limited Registration
Mr. Kerklaan

280-341C FINANCE I. (3 credits; Prerequisites: 280-271, 280-211 and first semester of 154-200 where microeconomics is treated.) An introduction to the principles, issues and institutions of Finance. Topics include valuation, risk, capital investment, financial structure, cost of capital, working capital management, financial markets and securities.
May 3 – June 21, **Section 1**
18:00 – 21:00 Monday and Wednesday
Limited Registration
Professor Sealey
May 4 – June 22, **Section 2**
18:00 – 21:00 Tuesday and Thursday
Limited Registration
Mr. Jog

280-341T FINANCE I. (3 credits; Prerequisites: 280-271, 280-211 and first semester of 154-200 where microeconomics is treated.) See 280-341C. Limited registration in both sections.
July 5 – August 18, **Section 1**
18:00 – 21:00, Monday and Wednesday
Mr. Choi
July 6 – August 19, **Section 2**
18:00 – 21:00, Tuesday and Thursday
Mr. Duck

280-352C MARKETING MANAGEMENT I. (3 credits.) An introduction to marketing principles and management, focusing on problem solving and decision making from the marketing manager's perspective. Topics covered include: the marketing concept; marketing strategies; marketing research; buyer behaviour; product and price policies; advertising, distribution, and sales force decision. The course relies on lectures, text material and case studies.
May 3 – June 21, **Section 1**
18:00 – 21:00 Monday and Wednesday
Limited Registration
Mr. Keesal
May 4 – June 22, **Section 2**
18:00 – 21:00 Tuesday and Thursday
Limited Registration
Mr. Johar

280-352T MARKETING MANAGEMENT I. (3 credits.) See 280-352C.
July 5 – August 18, **Section 1**
18:00 – 21:00 Monday and Wednesday
Limited Registration
Mr. Borts
July 6 – August 19, **Section 2**
18:00 – 21:00 Tuesday and Thursday
Limited Registration
Mr. Borts

280-373C OPERATIONS RESEARCH I. (3 credits; Prerequisite: 280-271.) Topics covered include: Introduction to decision analysis and risk attitudes, inventory control, linear programming and Simulation. The course stresses the formulation of problems and their solution by standard methods or by computer packages.
May 3 – June 21, **Section 1**
18:00 – 21:00 Monday and Wednesday
Limited Registration
Professor B. Smith
May 4 – June 22, **Section 2**
18:00 – 21:00 Tuesday and Thursday
Limited Registration
Professor B. Smith

280-373T OPERATIONS RESEARCH I. (3 credits; Prerequisite: 280-271.) See 280-373C.
July 5 – August 18
18:00 – 21:00 Monday and Wednesday
Limited Registration
Professor B. Smith

280-393T MANAGERIAL ECONOMICS. (3 credits; Prerequisite: 154-200.) The course focuses on the application of economic theory to management problems and the economic foundations of marketing, finance and production. Attention is given to the following topics: price and cost analysis, demand and supply analysis.
July 6 – August 19
18:00 – 21:00 Tuesday and Thursday
Limited Registration
Mr. Calantone

125-300C FRANÇAIS COMMERCIAL. See French as a Second Language.
Cours contingenté

FACULTY OF MUSIC

DEPARTMENT OF THEORY

211-110T MELODY AND COUNTERPOINT. (3 credits; Prerequisite: McGill Conservatory Theory Secondary V or equivalent; Pre- or Co-requisites: 212-128 or 212-129 and 211-170.) Analysis of melodies from various eras and cultures, and of two-part counterpoint, including styles and techniques of 20th Century counterpoint. Written exercises in melody and two-part counterpoint will be required. Notation and tuning and temperament.
July 5 – July 23
10:30 – 12:30 daily
Limited Registration
Mr. Kirschner **MUSIC C412**

211-111T ELEMENTARY HARMONY. (3 credits; Prerequisite: 211-110; Pre- or Co-requisites: 212-130 or 212-131 and 211-170.) This course will cover diatonic chords, harmonic progression, the concept and practice of tonality, simple modulation, seventh chords and secondary dominants. Small forms from c.1700 to the early 19th Century will be analyzed. Written four-part exercises will be required.
August 2 – August 26
10:30 – 12:30 daily
Limited Registration
Mr. Kirschner **MUSIC C412**

211-210C TONAL THEORY AND ANALYSIS I. (3 credits; Prerequisites: 211-110 and 211-111; Pre- or Co-requisites: 212-228 or 212-229 and 211-170.) Compositional resources of early and mid- 18th Century music. Thorough review of elementary harmonic procedure. Introduction to chromatic alteration and linear chords. Introduction to analysis of imitative and invertible counterpoint. Analysis of common forms of the period c. 1700 – 1770, including principal Baroque forms, but not including the Classical sonata. (Minimum enrolment of six for course to be given.)
May 3 – May 21
10:30 – 12:30 daily
Limited Registration
Mr. Batt **MUSIC C411**

211-211L TONAL THEORY AND ANALYSIS II. (3 credits; Prerequisite: 211-210; Pre- or Co-requisites: 212-230 or 212-231 *and* 211-171.) Compositional resources of late 18th and early 19th Century music. Analysis of forms common to the period c. 1770 – 1830, including Classical sonata forms in several media. Writing of short pieces for keyboard, piano and voice, string quartet. (Minimum enrolment of six for course to be given.)
June 1 – June 28
10:30 – 12:30 daily
Limited Registration
Mr. Batt **MUSIC C411**

211-310C MIDDLE AND LATE 19th CENTURY THEORY AND ANALYSIS. (3 credits; Prerequisites: 211-211 or 213-240 *and* 211-171 and 212-230 or 212-231.) Expanded harmonic resources of the late 19th Century (e.g. foreign modulation, chromatic harmony). Analysis of characteristic small and large forms. Development of writing and analytical skills with a goal toward perceiving how levels of musical structure interact.
May 3 – May 21
10:30 – 12:30 daily
Limited Registration
Professor Steven **MUSIC C407**

211-311L 20TH CENTURY THEORY AND ANALYSIS. (3 credits; Prerequisite: 211-310.) Exploration of 20th Century systems of pitch organization and attitudes toward counterpoint (e.g. polytonality, modal systems, neo-classical tonality, serialism, linear counterpoint, etc.) Examination of the relationship of these systems to earlier practices. Development of written and analytical skills for the purpose of gaining insight into 20th Century principles and techniques.
June 1 – June 21
10:30 – 12:30 daily
Limited Registration
Professor Steven **MUSIC C407**

212-129T EAR TRAINING (FIXED DOH). (2 credits; Prerequisite: McGill Conservatory Ear Training Secondary V or equivalent; Pre- or Co-requisite: 211-110.) Dictation and sight singing of intervals, triads, and pentatonic, modal and tonal melodies. Melodies employ the treble and bass clef, simple and compound time signatures, simple chromaticism, and key signatures up to two sharps and two flats generally. Aural identification of mode and form of dictated materials. (Minimum enrolment of six for course to be given.)
July 5 – July 30
9:00 – 10:30 daily
Limited Registration **MUSIC C402**

212-131T EAR TRAINING (FIXED DOH). (2 credits; Prerequisite: 212-128 or 212-129; Pre- or Co-requisite: 211-111.) Materials in addition to those described in 212-129 will include compound intervals, triads in inversion, diatonic seventh chords, simple atonal materials, and will involve alto clef, simple modulation, syncopation, and key signatures up to four sharps and four flats generally. (Minimum enrolment of six for course to be given.)
August 2 – August 26
9:00 – 10:30 daily
Limited Registration **MUSIC C402**

212-229C EAR TRAINING (FIXED DOH). (2 credits; Prerequisite: 212-130 or 212-131; Pre- or Co-requisite: 211-210.) Sightsinging of melodies from all periods involving easy modulations; two-part vocal compositions. Mixed clefs - treble, alto, tenor and bass. Aural analysis. Dictation: modulating melodies, non-modulating two-part counterpoint, isolated chords in four-part configuration (all triads in root position and inversions), soprano and bass lines of four-part chorale fragments.
May 3 – May 31
17:00 – 18:30 daily
Limited Registration **MUSIC C411**

212-231L EAR TRAINING (FIXED DOH). (2 credits; Prerequisite: 212-228 or 212-229; Pre- or Co-requisite: 211-210 or 211-211.) Sightsinging of melodies involving modulations to all related keys; two- and three-part vocal compositions; simple atonal melodies. Mixed clefs – treble, soprano, alto, tenor, bass. Dictation: modulating melodies, two-part structures, short atonal melodies, isolated chords and easy chorale fragments in four-parts (using triads, Mm7 and DD7 in root position and inversions).
June 1 – June 28
17:00 – 18:30 daily
Limited Registration **MUSIC C411**

212-329C EAR TRAINING (FIXED DOH). (2 credits; Prerequisites: 212-230 or 212-231 *and* 211-211.) Sightsinging: tonal exercises of greater complexity; atonal melodies. Mixed clefs – treble, soprano, alto, tenor, bass. Advanced aural analysis. Dictation: modulating melodies with moderately complex rhythms, two-part structures, isolated chords in all positions and four-part configurations, four-part chorale fragments and unrelated tonal chord progressions.
May 3 – May 31
17:00 – 18:30 daily
Limited Registration **MUSIC C412**

212-331L EAR TRAINING (FIXED DOH). (2 credits; Prerequisites: 212-328 or 212-329 *and* 211-211.) Sightsinging to include melodies with modulations to remote keys and complex atonal melodies; emphasis on 20th Century examples. Dictation: melodies involving modulations to remote keys, two-part counterpoint, atonal structures; isolated chords and four-part chorale excerpts involving all 7ths and augmented 6th chords; two-part rhythmic passages in all meters.
June 1 – June 28
17:00 – 18:30 daily
Limited Registration **MUSIC C412**

SCHOOL OF NURSING

575-561C EXTENDED NURSING PRACTICE. (9 credits.) This course is clinically based and intended to prepare the nurse for extended nursing practice, a knowledge and understanding of which is also fundamental to teaching students/staff nurses and to administering nursing services in programs or clinical areas where the extended nursing role is practised. (Open only to students with either a B.Sc.N. or a B.N.) Apply to the Internship Committee, School of Nursing, 3506 University St., Montreal, PQ H3A 2A7.
May 3 – May 25
9:00 – 17:00 daily
Text: Sherman, J.L. and Fields, S.K., *Guide to Patient Evaluation,* Medical Examination Pub. Co., 1978.
Minimum Registration: 8 students
Maximum Registration: 14 students
Professor Oseasohn **WILSON**

FACULTY OF RELIGIOUS STUDIES

260-280C ELEMENTARY NEW TESTAMENT GREEK. (6 credits.) An introduction to the grammar and syntax of New Testament Greek.
May 3 – June 25
8:00 – 10:00 daily
Text: Jay, Eric G., *New Testament Greek: An Introductory Grammar*, SPCK, 1978 (8th impression).
Professor Wright **BIRKS 106**

260-343L TOPICS IN PHILOSOPHY OF RELIGION: Crisis in Faith. (3 credits.) The modern revolt against religion. A topical study of the breakdown of European religious institutions in the 19th Century with special emphasis on the events leading to the rejection of traditional religious beliefs.
June 1 – June 28
10:30 – 12:30 daily
Text: Chadwick, Owen, *The Secularization of the European Mind in the Nineteenth Century,* Cambridge University Press, 1975.
Mr. De Bie **BIRKS 203**

260-347T TOPICS IN RELIGION AND THE ARTS: Religion and Literature. (3 credits; Pre-requisites: Some background in religious and/or literary studies is desirable.) This course explores the relation between religious and poetic language, using prose and verse texts from nineteenth- and twentieth- century European literature as well as texts from the Judaeo-Christian liturgical tradition. Critical readings illustrative of contemporary interpretation theory provide a theoretical context.
July 5 – July 29
13:30 – 16:00 daily
Pre-Sessional Readings: Flaubert, Gustave, *Three Tales (Trois Contes)*; Tolstoy, L. N., *Father Sergius (Otets Sergie).*
Mr. Cooper **ENGMD 285**

260-390C ELEMENTARY BIBLICAL HEBREW. (6 credits.) An introduction to the grammar and syntax of biblical Hebrew.
May 3 – June 25
10:30 – 12:30 daily
Text: Sawyer, John F. A., *A Modern Approach to Biblical Hebrew,* Oriel Press (London), 1976.
Professor Culley **BIRKS 106**

INSTITUTE OF ISLAMIC STUDIES

397-522C LOWER INTERMEDIATE ARABIC. (6 credits; Prerequisite: 397-521 Introductory Arabic, or equivalent.) Lecture hours and laboratory. (Not open to students who have taken 397-200 or 397-622.)
May 3 – June 25
10:30 – 12:30 daily
Professors Boullata and Little **ARTS W5**

FACULTY OF EDUCATION

Associate Dean: Dr. W. Lawlor

PROGRAMS OF PROFESSIONAL DEVELOPMENT FOR TEACHERS

The Faculty of Education offers a selected number of undergraduate programs designed for teachers who are interested in pursuing further studies. All the programs listed below meet provincial standards in regard to the upgrading of teacher classification (Regulation No. 5).

Unless otherwise directed, for admission to all the following programs apply to:
Office of Continuing Education
Faculty of Education
3700 McTavish Street
Montréal, PQ H3A 1Y2
(514) 392-8815

Applications and admission to these programs are processed at all times during the academic year and during the summer months.

N.B. Students are permitted to take a maximum of six (6) credits in any part of the Summer Session.

BACHELOR OF EDUCATION FOR CERTIFIED TEACHERS (ELEMENTARY EDUCATION)

Admission requirements:
1. Diploma of Collegial Studies or equivalent;
2. teacher training from an approved institution;
3. to be prepared for an interview if opting for a concentration in Special Education, Second Languages or Moral and Religious Education;
4. letter of recommendation from a competent authority;
5. to possess a good functional knowledge of English; those whose mother tongue is not English may be required to pass a language proficiency test.

Further information regarding the program may be obtained from the Office of Continuing Education.

Candidates enrolled in this 90 credit program must complete course work within the following general pattern:

1) Thirty (30) **academic credits** in five (5) subject areas relevant to elementary education in a 12-9-3-3-3 pattern (i.e. 12 credits in one subject, 9 credits in a second subject, and 3 credits in each of three other subject areas.)

2) Fifteen (15) credits chosen from courses which will enhance the candidate's **cultural development.** These are to be chosen in consultation with the Program Director.

3) Fifteen (15) credits as **free electives** (courses selected by candidate after consultation with the Program Director.)

4) Thirty (30) credits in a prescribed **education concentration.** At the present time, these are available in:

Diagnostic and Remedial Mathematics
Educational Media
Kindergarten
Moral and Religious Education
Reading Instruction
Second Language Teaching
Social Studies Education
Special Education

These programs are described below.

NOTE: Those who do not opt for one of the Education concentrations listed above may follow a **general option** under the guidance of the Program Director.

BACHELOR OF EDUCATION (VOCATIONAL)

For degree candidates who seek preparation to teach vocational subjects at the secondary school level (business and technical).

PROGRAM PROFILE

The 90-credit degree program is completed in two phases: Permit Phase and Post-Certification Phase.

PERMIT PHASE:

Designed to meet the legal requirement for vocational teacher certification through courses emphasizing teaching methodologies and the implementation of these strategies within the secondary school setting. 30 credits.

Post-Certification Phase:

Primary emphasis is towards upgrading and perfecting the skills of vocational teachers who have previously met minimum certification requirements. Courses within this phase are of three types and terminate in the attainment of the B.Ed. (Vocational) degree.

1. Subject Specialization: Courses directly applicable to the subject matter taught in the secondary school. Includes experiences within the industrial and business milieu. 30 credits.
2. Departmental Selection: Courses normally pursued within the Division of Vocational Teacher Education relating either to special methodologies of teaching or to vocational education in general. 15 credits.
3. Free Electives: Courses chosen by the candidate in conjunction with an adviser from any course within the university which carries credit. 15 credits.

Entrance Requirements:

Permit Phase (Part-Time): *For persons presently teaching vocational education full time in a secondary school,* the basis for entry into the program is a Provisional Teaching Authorization and a contract to teach vocational education.

Candidates whose mother tongue is other than the language of instruction may be required to prove proficiency prior to recommendation for certification.

Post-Certification Phase: *For vocational teachers who already hold a teaching permit in vocational education,* the basis for entry into this phase of the program is completion of the Permit Phase or equivalent program.

Further information regarding the program may be obtained from

Division of Vocational Teacher Education
Faculty of Education
3700 McTavish St.
Montreal, PQ H3A 1Y2
(514) 392-8824

DIPLOMA IN COLLEGE TEACHING

Admission requirements:

1. a baccalaureate or equivalent;
2. a letter attesting to employment in post secondary teaching.

Further information regarding this program may be obtained from the office of:

Director of
College Level Programs
Faculty of Education
3700 McTavish Street
Montreal, PQ H3A 1Y2
(514) 392-8807

Candidates must take the following 12 credits:

449-587, 449-588, 449-592.

Among the 18 credits of optional choices open to individuals who qualify are courses affording field experience in business, industry and nursing; educational courses in appropriate areas; and studies in the discipline for more effective teaching (where arrangements can be made with subject departments).

These courses may be selected from those offered by the various departments of the Faculty of Education as well as those of other Faculties and Schools in the University with the approval of the Director of College Level Programs and through the cooperation of the departments concerned.

In addition, the candidate may select from a few courses designed specifically for this program.

DIPLOMA IN HUMAN RELATIONS AND FAMILY LIFE EDUCATION

Admission requirements:

1. a baccalaureate or equivalent;
2. two letters of recommendation;
3. a biographical sketch.

Further information regarding the program may be obtained from the Office of Continuing Education.

Candidates must take the following 18 credits: 412-401, 412-402, 412-403, 414-460, 411-461.

Twelve credits of elective courses may be taken from the following: 412-404, 412-405, 412-406, 412-407, 412-408, 412-409, 414-462, 414-463, 414-464.

CERTIFICATE IN DIAGNOSTIC AND REMEDIAL MATHEMATICS

Admission requirements:

1. Diploma of Collegial Studies or its equivalent;
2. teacher training from an approved institution;
3. letter of recommendation from a competent authority;
4. test of proficiency in mathematics.

For further information please contact the Office of Continuing Education.

Candidates must take two of the following background courses: 433-230, 433-234 or 433-433; one of the following Reading courses: 433-466 or 433-467; all of the following courses: 414-442, 433-436, 433-437 and 433-438; and two of the following electives: 414-340, 414-394, 414-495, 433-435, 432-204 and 432-409. Electives other than the above may be chosen only with the advice and consent of the Program Director.

CERTIFICATE IN EDUCATIONAL MEDIA

Admission requirements:

1. Diploma of Collegial Studies or equivalent;
2. letter of recommendation from employer.

Further information regarding this program may be obtained from the Office of Continuing Education.

Required Courses (18 credits)

432-204, 432-209, 432-220, 432-304; two of the following: 414-310 (or 432-409 if the subject is microcomputers), 432-205, 432-303, 432-306.

Electives

Twelve credits may be taken from the following: 432-205, 432-303, 432-305, 432-306, 432-403, 432-404, 432-405, 432-406, 432-409, 414-310, 414-304, 426-296.

CERTIFICATE IN MORAL AND RELIGIOUS EDUCATION

Admission requirements:

1. Diploma of Collegial Studies or equivalent;
2. teacher training from an approved institution;
3. letter of recommendation from a competent authority;
4. personal interview;
5. normally, the candidate should be actively engaged as a teacher or be in a position to teach moral and religious instruction in order to fulfill the practical requirements of the program.

Further information regarding the program may be obtained from the Office of Continuing Education.

A.1 Education Concentration (9 credits)
   1. one of the following: 260-231, 415-398, 421-231, 413-300.
   2. one of the following: 415-322, 415-332, 415-392, 421-322, 421-332, 421-372;
   3. one of the following: 415-496, 421-496.

B. Major Areas (18 credits)
   1. 3 credits from courses which are intended to provide a basic approach to man's quest for a world view.
   2. 12 credits from courses which are intended to provide a concentration in Christianity, Biblical Studies, World Religions, and/or Ethical Thinking.
   3. 3 credits from courses which are intended to explore an issue pertinent to religion and culture and 3 credits of electives.

C. Free Electives (3 credits)

N.B. List of approved courses is available at the Faculty of Education, Room 440. Course selection must be made in consultation with, and approved by, the Program Director.

CERTIFICATE IN READING INSTRUCTION

Admission requirements:

1. Diploma of Collegial Studies or equivalent;
2. teacher training from an approved institution;
3. letter of recommendation from a competent authority.

Further information regarding the program may be obtained from the Office of Continuing Education.

Candidates must take eight compulsory and two elective courses. The compulsory courses are:

- 433-260 and 433-262
  or
  433-262 and 425-463
- 433-364
- 433-261 and 433-263
  or
  433-263 and 425-467
- 433-325 or 425-366
- 433-465
- 433-466

The remaining two courses in are reading electives to be elected by the student with the advice and consent of the Program Director.

CERTIFICATE IN SECOND LANGUAGE TEACHING

This 30 credit program seeks to enhance the professional competence of certified teachers who are interested in teaching second languages and are sufficiently bilingual to do so. The program offers two options:

French as a Second Language, Elementary and Secondary
English as a Second Language, Elementary and Secondary

All eligible candidates may follow this program concurrently as part of the B.Ed. for Certified Teachers.

Admission requirements:

1. teacher training from an approved institution;
2. Diploma of Collegial Studies or equivalent;
3. language proficiency tests administered by the Department of Education in Second Languages;
4. letter of recommendation from a competent authority;
5. normally, the candidate should be actively engaged as a teacher of the language concerned or should begin teaching it during enrolment in the program so that a supervised practicum may be assured.

Further information may be obtained from:

Office of Continuing Education

Program Profile

Required Courses **18 credits**

1. One of the following: (6 credits)
   (a) French as a Second Language: 431-344, Teaching French as a Second Language – Secondary School (3 credits)
   and
   431-372 Teaching French as a Second Language – Elementary School – (3 credits)
   (b) English as a Second Language: 431-347 Teaching English as a Second Language – Elementary School (3 credits)
   and
   431-358 Teaching English as a Second Language – Sec. School (3 credits)
2. 435-360 Second Language Practicum (6 credits)
3. One of the following:
   431-301 Applied Linguistics (French) (3 credits)
   431-311 Applied Linguistics (TESL)
4. Selected Academic Course: (3 credits) Language, Linguistics or Literature

NB: For ESL Teachers, 431-449, Special Topic: Linguistics for Teachers.

Elective Courses **(12 credits)**

431-302 Measurement and Evaluation in
431-312 Second Language Teaching (3 credits)
431-303 Media and Second Language Teaching (Didactique instrumentale) (3 credits)
431-304 Sociolinguistics and Second Language Teaching (3 credits)
431-305 Psycholinguistics and Second Language Teaching (3 credits)
431-307 Error Analysis and Second Language Teaching (3 credits)
431-340 Animation Techniques (3 credits)
431-345 Bilingual Class (3 credits)
431-346 Bilingual Class II (3 credits)
431-373 In-depth Study of Curriculum Development in Second Languages (3 credits)
431-380 Teaching French to Non-Francophone Adults (3 credits)
433-325 Children's Literature (3 credits)
425-366 Literature for Young Adults (3 credits)
424-394 Creative Dramatics for the Classroom (3 credits)
425-463 Reading Instruction – High School (3 credits)
433-465 Integrated Language Arts Program (3 credits)

Electives other than the above may be chosen only with the advice and consent of the Program Director.

CERTIFICATE IN SOCIAL STUDIES EDUCATION

Admission requirements:

1. Diploma of Collegial Studies or its equivalent;

2. teacher training from an approved institution;
3. letter of recommendation from a competent authority;

For further information regarding this program, please contact the Office of Continuing Education.

Candidates must take the following courses: 430-448, 430-482, 430-485, 430-486, 433-381, 433-382, 433-383. Two of the following electives must be completed: 414-394, 430-366, 432-204, 433-325, 433-466.

CERTIFICATE IN SPECIAL EDUCATION

Admission requirements:

1. Diploma of Collegial Studies or equivalent;
2. teacher training from an approved institution;
3. letter of recommendation from a competent authority;
4. personal interview, at the discretion of the Program Director.

Further information regarding this program may be obtained from the Office of Continuing Education.

Candidates must take the following 24 credits: 414-340, 414-341, 414-342, 414-343, 414-344, 414-440, 414-441, 414-442.

Six credits of elective courses may be taken from the following: 412-402, 412-405, 414-249, 414-346, 414-377, 414-443, 414-444, 414-445, 414-446, 414-457.

Electives other than the above may be chosen only with the advice and consent of the Program Director.

PROGRAM FOR KINDERGARTEN SPECIALISTS

Admission requirements:

1. teacher training from an approved institution;
2. Diploma of Collegial Studies;
3. permanent Québec Teacher Certification.

Further information regarding this program may be obtained from the Office of Continuing Education.

Candidates must take the following 24 credits; 414-214, 414-314, 424-324, 424-325, 426-322, 429-322, 433-312.

Six credits of elective courses may be taken from the following: 414-340, 414-443, 424-326, 429-201, 431-322, 433-260, 433-331, 433-371, 433-381, 433-455, 433-467.

FACULTY OF EDUCATION UNDERGRADUATE COURSE OFFERINGS

ACADEMIC COURSES IN EDUCATION ARE DESIGNATED BY A † IN FRONT OF THE COURSE TITLES

EARLY CHILDHOOD ELEMENTARY EDUCATION

English

425-365T EXPERIENCES IN COMMUNICATIONS. (3 credits.) Personal development of students as communicators; involvement of the imagination in individual and group projects in language and in another chosen medium of communication; analysis of experiences in projects in relation to general problems of communication. In certain circumstances and with the approval of the adviser this course may be considered an academic course. Please note that this section will be oriented toward elementary school teaching.
July 5 – July 29
8:00 – 10:30 daily
Text: Bittner, John R., *Mass Communications—An Introduction*, Prentice-Hall.
Limited Registration
Professor Nixon **ED 219**

Science

† **433-473T ECOLOGICAL FEATURES OF OUR NATURAL ENVIRONMENT.** (3 credits.) A lecture, laboratory and field course to train elementary school teachers in the principles and practices of field biology and nature tours. The observation and identification of various organisms and a study of their ecological relationships in the web of life. Field trips.
July 5 – July 29
8:00 – 10:30 daily
Field Trips T.B.A.
Text: Hinkley, A.B., Applied Ecology—*A Non-Technical Approach*, Collier-MacMillan.
Limited Registration
Professor Searles **ED 357**

Mathematics

† **433-230L BACKGROUND MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS.** (3 credits.) A course specially designed for elementary school teachers to provide the basic foundations, insight and understanding of the Québec modern elementary mathematics programs. Recommended for all elementary school teachers.
June 1 – June 25
8:00 – 10:30 daily
Text: Wheeler, R., *Modern Mathematics—An Elementary Approach*, Brooks-Cole.
Limited Registration
Professor Modafferi **ED 436**

Reading

433-260T READING INSTRUCTION—EARLY CHILDHOOD. (3 credits; Prerequisite: Teaching qualifications from an approved teacher training institution or permission of the Director of the Reading Centre.) Methods and materials for the teaching of reading in the primary grades.
July 5 – July 29
8:00 – 10:30 daily **ED 248**

* **433-261T CORRECTIVE READING INSTRUCTION—EARLY CHILDHOOD.** (3 credits; Prerequisites: 433-260 and permission of the Program Director. Must obtain authorization and register prior to May 1, 1982; Corequisite: 433-263T.) Reading problems at the readiness and basic decoding level presented in a practicum format covering classroom diagnosis and remediation.
Dates: 2 Saturdays in June plus
July 5 – July 30
Times: 8:30 – 11:15 daily

433-262T READING INSTRUCTION—LATER CHILDHOOD. (3 credits; Prerequisite: Teaching qualifications from an approved teacher training institution or permission of the Director of the Reading Centre.) Methods and materials for the teaching of reading in the intermediate grades.
July 5 – July 29
11:00 – 13:30 daily
Limited Registration **ED 203**

* **433-263T CORRECTIVE READING INSTRUCTION—LATER CHILDHOOD.** (3 credits; Prerequisites: 433-262, 433-364 and permission of the Program Director. Must obtain authorization and register prior to May 1, 1982; Corequisite: 433-261T or 430-467T.) Reading problems beyond the basic decoding level presented in a practicum format covering classroom diagnosis and remediation.
Dates: 2 Saturdays in June plus
July 5 – July 30
Times: 11:15 – 14:00 daily

† **433-325T CHILDREN'S LITERATURE.** (3 credits; Prerequisite: Teaching qualifications from an approved teacher training institution or permission of the Director of the Reading Centre.) Selection and use of literature suitable for children in the elementary school.
July 5 – July 29
14:00 – 16:30 daily **ED 329**

433-364T INTRODUCTION TO READING DIAGNOSIS. (3 credits; Prerequisite: Teaching qualifications from an approved teacher training institution or permission of the Director of the Reading Centre.) Tests and techniques for assessing student reading ability, including methods of diagnostic teaching in clinic and classroom.
July 5 – July 29
14:00 – 16:30 daily **ED 203**

425-366T LITERATURE FOR YOUNG ADULTS. (3 credits; Prerequisite: Teaching qualifications from an approved teacher training institution or permission of the Director of the Reading Centre.) Selection and use of literature for the differing abilities and interests of high school students.
July 5 – July 29
14:00 – 16:30 daily **ED 329**

425-463T READING INSTRUCTION—HIGH SCHOOL. (3 credits; Prerequisite: Teaching qualifications from an approved teacher training institution or permission of the Director of the Reading Centre.) Methods and materials for the teaching of developmental reading at the high school level.
July 5 – July 29
8:00 – 10:30 daily **ED 203**

433-465T INTEGRATED LANGUAGE ARTS PROGRAM. (3 credits; Prerequisite: Teaching qualifications from an approved teacher training institution or permission of Director of Reading Centre.) Methods and materials for the integration of reading/writing/speaking/listening aspects of communications instruction.
July 5 – July 29
11:00 – 13:30 daily **ED 329**

433-466T READING IN THE CONTENT FIELDS. (3 credits; Prerequisite: Teaching qualifications from an approved teacher training institution or permission of the Director of the Reading Centre.) An exploration of reading instruction in the content fields throughout the elementary and secondary schools.
July 5 – July 29
11:00 – 13:30 daily **ED 248**

433-467T SPECIAL TOPICS IN READING. Big Books for Little Kids. (3 credits.) This course will examine the language competency of younger children and lead into the development of materials and methods for using both the natural language of the child and trade books in the development of language skills. This course will have a field component in a local summer program for children. (Permission register must be obtained from the Instructor before June 1st.)
July 5 – July 29
8:00 – 10:30 daily
Professor Slaughter **ED 329**

* **425-467T CORRECTIVE READING INSTRUCTION–HIGH SCHOOL.** (3 credits; Prerequisites: 430-463 and permission of the Program Director. Must obtain authorization and register prior to May 1, 1982. Corequisite: 433-263T.) Reading problems found at the high school level presented in a practicum format covering diagnosis and remediation.
Dates: 2 Saturdays in June plus
July 5 – July 30
Times: 8:30 – 11:15 daily

- **PLEASE NOTE:**
Reading clinics will be held in several locations around the Province. Exact dates and times may vary locally. The normal summer clinics will meet two Saturdays in June plus from July 5 to July 30. Common daily schedule might be from 8:30to 14:00.

Counselling and authorization for any clinic may be obtained from the Reading Centre during Marchand April—specific dates will be published in the *Scolium*. Registration for any clinic must be completed before May 1, 1982. Contact the Reading Centre directly (514, 392-8888) for additional information, if necessary.

SECONDARY EDUCATION

ENGLISH

425-201C EFFECTIVE WRITTEN COMMUNICATION. (3 credits.) A course designed to help students develop the quality and effectiveness of writing in various academic and professional situations. Emphasis is on the writing process itself: appropriate problem-solving strategies; ways of generating, developing and organizing ideas; designing communication for different audiences and purposes; revising and editing texts; and analyzing writing problems.
May 3 – June 12
17:00 – 20:00 Monday and Thursday
Limited Registration **BRONF 502**

VOCATIONAL TEACHER EDUCATION
(All courses open only to teachers.)

Permit phase (part-time)

First Summer: Business

436-360T TEACHING METHODS IN BUSINESS EDUCATION. (3 credits; Prerequisite: A Provisional Teaching Authorization.) A course in general teaching principles which will include the teaching and learning process, lesson planning, unit planning, and techniques of instruction specific to: a) Accounting and Business Machines, b) Typewriting and Shorthand.
July 5 – July 29
14:00 – 16:30 daily **ED 216**

436-364T ORGANIZATION AND ADMINISTRATION OF BUSINESS EDUCATION. (3 credits; Prerequisite: A Provisional Teaching Authorization.) A course designed to investigate the place of Business Education in the secondary school curriculum and to indicate to the beginning teacher the need for good planning and administration in the classroom routine and to develop an ability to evaluate various aids to the learning process.
July 5 – July 29
8:30 – 12:30 daily **ED 216**

First Summer: Technical

436-373T METHODS IN TEACHING TECHNICAL SUBJECTS. (3 credits; Prerequisite: A Provisional Teaching Authorization.) Methods and techniques of instruction in vocational education subjects. Classroom management and administration. Lesson planning and use of instructional materials. Individual assignments, demonstrations and reports. Special problems of the teacher.
July 5 – July 29
14:00 – 16:30 daily **ED 216**

436-374T ORGANIZATION AND ADMINISTRATION IN TECHNICAL EDUCATION. (3 credits; Prerequisite: A Provisional Teaching Authorization.) A course designed to investigate the principles of effective laboratory management, planning, safety, material and tool control, as they relate to student and teacher responsibilities in the secondary school.
July 5 – July 29
8:30 – 12:30 daily **ED 216**

Second Summer

436-268T INSTRUCTIONAL TECHNOLOGY IN VOCATIONAL EDUCATION. (6 credits.) An integrated study of introductory concepts of media strategies, communications theory, and research and development in the teaching of vocational subjects. Emphasis will be placed on individual project development in each participating teacher's area of specialization.
July 5 – July 29
8:00 – 15:30 daily **ED 627**

Third Summer

436-383T CURRICULUM DEVELOPMENT IN VOCATIONAL EDUCATION. (3 credits.) Curriculum organization of technical vocational education in harmony with the needs of contemporary society; readings, discussions, terminology, aims and objectives, analysis, instructional units, principles of course organization and planning of curricula for specific situations.
July 5 – July 29
8:00 – 10:30 daily **ED 341**

Post Certification Phase

Business

436-461T METHODS OF TEACHING ACCOUNTING. (3 credits.) Prerequisites: 280-211 or equivalent.) Organization of knowledge and learning activities to achieve instructional objectives. Development of evaluative techniques used in determining instructional effectiveness in the field of accounting.
July 5 – July 29
11:00 – 13:30 daily **ED 328**

Technical

Please consult the Department for the location of the following Technical courses.

Supplies: Candidates will be required to pay the actual cost of all materials used in the construction of special projects and other assignments. Such materials will be made available.

436-305T DESIGN FOR PRODUCTION TOOLING. (3 credits.) An analysis of product and mechanical design to develop an advanced drafting course for the secondary school level. Experiences in jig, fixture, and die design in the development of working drawings to solve production design problems.
July 5 – July 29
8:30 – 11:30 daily

436-353T TESTING OF CHEMICAL AND MECHANICAL BONDS. (3 credits.) Analysis of mechanical fastening devices and natural and synthetic adhesives. Destructive testing of laboratory prepared samples.
July 5 – July 29
8:30 – 11:30 daily

436-377T FLUID POWER SYSTEMS. (3 credits.) An examination of fluid power systems and components appropriate to secondary school hydrothermic and motorized equipment vocational courses. Identification of physical laws and principles governing the behaviour of fluids for power and signal transmission. Development of instructional aids and equipment specifically designed for high school use.
July 5 – July 29
12:30 – 15:30 daily

436-399T METAL FUSION II. (3 credits.) Principles and theory of specialized welding procedures using conventional welding equipment. Includes introduction to tungsten and metallic inert gas welding processes and metal surfacing processes. Design and construction of instructional materials suitable for advanced welding programs at the secondary school level.
July 5 – July 29
12:30 – 15:30 daily

Please Note: In addition the course 302-381C POLYMER TECHNOLOGY will be offered especially for vocational teachers. Please see the Chemical Engineering section of this announcement for details.

Post Certification Phase

All Areas

(Open to all Business, Technical and Home Economics candidates.)

* **436-275(C/L/T) FIELD EXPERIENCE IN BUSINESS AND INDUSTRY: OVERVIEW.** (3 credits.) Participation and/or observation on location in an industry or business. A study of the total operations of a selected industrial or commercial enterprise. A comprehensive technical report is submitted upon completion of the work study. (Students in industry all day.)

* **436-278(C/L/T) FIELD EXPERIENCE IN BUSINESS AND INDUSTRY: OVERVIEW.** (6 credits.) Participation and/or observation on location in an industry or business. A study of the total operations of a selected industrial or commercial enterprise. Includes an investigation of the inter-relationship of specific parts or subdivisions to the product produced or the service rendered. A comprehensive technical report submitted upon completion of the work study. (Students in industry all day.)

* **436-378(C/L/T) FIELD EXPERIENCE IN BUSINESS AND INDUSTRY: PROCESS.** (3 credits.) A work-study experience selected in consultation with an adviser focusing on new equipment, techniques or practices recently introduced into industry or business. The course requirements will also include the preparation and submission of a technical report. (Students in industry all day.)

* **436-379(C/L/T) FIELD EXPERIENCE IN BUSINESS AND INDUSTRY: PROCESS.** (6 credits.) See course description for 436-378.

* **436-398(C/L/T) SPECIAL PROJECT IN VOCATIONAL EDUCATION.** (3 credits.) A project related to the student's teaching concentration will be investigated, developed, produced, implemented and/or evaluated, depending on the nature of the project. Students must identify the problem or topic to be investigated and obtain approval of the Instructor. Includes preparation and submission of a written report. Independent study.

* **436-477(C/L/T) FIELD EXPERIENCE IN BUSINESS AND INDUSTRY: METHODOLOGY.** (3 credits.) A work-study experience involving observation and evaluation of training techniques and pedagogical principles used by business or industry in the preparation of personnel for specified tasks. Includes preparation and submission of a technical report. (Students in industry all day.)

* **436-478(C/L/T) FIELD EXPERIENCE IN BUSINESS AND INDUSTRY: METHODOLOGY.** (6 credits.) See course description for 436-477.

436-482(C/L/T) SELECTED STUDIES IN BUSINESS AND INDUSTRY. (3 credits.) A specially designed course related to the teaching specialties of the individual student. Involves a study of contemporary technological developments from business or industry. Individual assignment.

* **Please Note:**
For the courses 436-275, -278, -378, -379, -477 and -478, candidates will be placed in a selected industrial or business enterprise for a period of three to six weeks (one credit per week) during any period from May to September by arrangements between the candidate and the

University. Courses starting in May must have a designation "C" (e.g. 436-275C), courses starting in June must have a designation of "L", and courses starting in July or August must have a designation of "T". Candidates seeking further information on any of these courses should direct inquiries to:

Coordinator for Field Experience Courses
Division of Vocational Teacher Education
Faculty of Education
McGill University
3700 McTavish Street
Montreal, PQ H3A 1Y2
Telephone: (514) 392-8838

EDUCATION IN THE ARTS

Art

It is recommended that students taking studio courses in Education in Art do not undertake other courses at the same time.

426-204T DRAWING. (3 credits.) Development of draughtsmanship; exploration of various forms of graphic expression.
July 5 – July 29
8:00 – 10:30 daily
Limited Registration
Mr. Krol **ED 632**

† **426-205C PAINTING II.** (3 credits; Prerequisite: Drawing 426-204 or permission of Instructor.) An investigation of media tools and techniques primarily through studies of natural forms, the human figure. Students work at their own level.
May 3 – May 28
8:00 – 10:30 daily
Limited Registration
Professor Tondino **ED 632**

† **426-304C PAINTING III.** (3 credits; Prerequisites: 426-206 and permission of Instructor.) A continuation of 426-206. Students work at their own level.
May 3 – May 28
8:00 – 10:30 daily
Limited Registration
Professor Tondino **ED 632**

† **426-305C PAINTING IV.** (3 credits; Prerequisites: 426-304 and permission of Instructor.) A continuation of 426-304. Students work at their own level.
May 3 – May 28
8:00 – 10:30 daily
Limited Registration
Professor Tondino **ED 632**

† **426-404C PAINTING V.** (3 credits; Prerequisites: 426-305 and permission of Instructor.) A continuation of 426-305. Students work at their own level.
May 3 – May 28
8:00 – 10:30 daily
Limited Registration
Professor Tondino **ED 632**

† **426-405C PAINTING VI.** (3 credits; Prerequisites: 426-404 and permission of Instructor.) A continuation of 426-404. Students work at their own level.
May 3 – May 28
8:00 – 10:30 daily
Limited Registration
Professor Tondino **ED 632**

† **426-206C PRINTMAKING I.** (3 credits.) An introduction to some graphic techniques; a practical study in the various elementary processes, e.g. lino cuts, wood cuts, monoprints, etc. Workshop.
May 3 – May 28
8:00 – 10:30 daily
Limited Registration
Professor White **ED 613**

† **426-207C PRINTMAKING II.** (3 credits; Prerequisite: 426-206 or permission of Instructor.) Study in further graphic techniques. These may include line engraving, dry point, relief etching, intaglio and related processes. Workshop.
May 3 – May 28
8:00 – 10:30 daily
Limited Registration
Professor White **ED 613**

† **426-394C PRINTMAKING III.** (3 credits; Prerequisite: 426-207 or permission of the Instructor.) Continuation of studies of graphic techniques. These may include variations of previously learned techniques, silk screen, viscosity printing, multiple plate work, etc. Workshop.
May 3 – May 28
8:00 – 10:30 daily
Limited Registration
Professor White **ED 613**

† **426-395C PRINTMAKING IV.** (3 credits; Prerequisite: 426-394 or permission of the Instructor.) Advanced studies in various graphic media. The student will be expected to be familiar with standard processes in order to begin developing a personal style. Workshop.
May 3 – May 28
8:00 – 10:30 daily
Limited Registration
Professor White **ED 613**

† **426-494C PRINTMAKING V.** (3 credits; Prerequisite: 426-395 or permission of the Instructor.) An extension of skills learned in Graphics I – IV. Techniques explored may include engraving, silk screen, relief etching, intaglio, collagraphy, dry point, combinations of printing techniques. The student will be expected to explore those areas which most closely correspond to his particular graphic style.
May 3 — May 28
8:00 – 10:30 daily
Limited Registration
Professor White **ED 613**

† **426-495C PRINTMAKING VI.** (3 credits; Prerequisite: 426-494 or permission of the Instructor.) The student is expected to have mastered basic

graphic skills and be able to work independently. A competent development of personal style, experimentation with, and control over the chosen medium is expected.
May 3 — May 28
8:00 – 10:30 daily
Limited Registration
Professor White **ED 613**

† **426-208C INTRODUCTION TO CERAMICS.** (3 credits.) A consciousness of the medium is developed through basic ceramic processes: Hand building experiences and introduction to wheel thrown construction.
May 3 – May 28
8:00 – 10:30 daily
Limited Registration
Professor Studham **ED 615**

† **426-241C BASIC ART MEDIA.** (3 credits.) A course to acquaint the student with basic art media in two and three dimensions and to provide for involvement and in-depth experience in the creative process.
May 3 – May 28
8:00 – 10:30 daily
Limited Registration
Professor Papke **ED 624**

† **426-206T PRINTMAKING I.** (see 426-206C.)
July 5 – July 29
8:00 – 10:30 daily
Limited Registration
Professor White **ED 613**

† **426-207T PRINTMAKING II.** (See 426-207C.)
July 5 – July 29
8:00 – 10:30 daily
Limited Registration
Professor White **ED 613**

† **426-394T PRINTMAKING III.** (See 426-394C.)
July 5 – July 29
8:00 – 10:30 daily
Limited Registration
Professor White **ED 613**

† **426-395T PRINTMAKING IV.** (See 426-395C.)
July 5 – July 29
8:00 – 10:30 daily
Limited Registration
Professor White **ED 613**

† **426-494T PRINTMAKING V.** (See 426-494C.)
July 5 – July 29
8:00 – 10:30 daily
Limited Registration
Professor White **ED 613**

† **426-495T PRINTMAKING VI.** (See 426-495C.)
July 5 – July 29
8:00 – 10:30 daily
Limited Registration
Professor White **ED 613**

† **426-308T RAKU CERAMICS.** (3 credits; Prerequisite: 426-208 or permission of Instructor.) Exploration of Raku techniques involving wheel work, hand building, and kiln building.
July 5 – July 29
8:00 – 10:30 daily
Limited Registration
Professor Studham **ED 615**

Music

† **429-341L CREATIVE APPROACHES TO MUSIC LISTENING FOR ELEMENTARY TEACHERS.** (3 credits; Prerequisite: 429-201 or permission of the department.) A course which concentrates on the form, structure and history of music; stresses a creative approach to music listening in the elementary grades. Recordings appropriate for children are studied.
June 1 – June 25
9:00 – 12:00 daily **ED B148**

Drama

† **424-394T CREATIVE DRAMATICS FOR THE CLASSROOM.** (3 credits.) A participatory course in creative drama and the use of improvisational techniques in the pursuit of student development.
July 5 – July 29
9:00 – 12:00 daily
Limited Registration
Professor Webb-Hearsey **ED 129**

† **424-494T IMPROVISATION AND THEATRE ARTS FOR THE CLASSROOM.** (3 credits; Prerequisite: 427-394.) A course beyond the introductory level to provide further perspectives on the teaching of drama and the teaching of improvisation. Instruction and practice in play production will be included.
July 5 – July 29
13:00 – 16:00 daily
Limited Registration
Professor Webb-Hearsey **ED 129**

EDUCATION IN SECOND LANGUAGES

Teaching English as a Second Language (TESL)

431-311L LINGUISTICS APPLIED TO TEACHING ENGLISH AS A SECOND LANGUAGE. (3 credits; Prerequisite: High degree of fluency in English.) Introduction to general linguistics; the nature and the function of language; the relations of current linguistic theories to the selection, progression, presentation and fixation of English program content; examination and preparation of teaching, remedial and testing materials related to English as a Second Language. Course offered in English.
June 1 – June 25
16:30 – 19:00 daily
Limited Registration
Mrs. R. Johnson **ED 437**

431-449T SPECIAL TOPIC IN SECOND LANGUAGE TEACHING, Reading and Writing Skills in the Second Language Classroom. (3 credits; Prerequisite: High degree of fluency in English.) Looking at reading and writing from a developmental perspective. Focus on the examination, evaluation, and creation of activities and exercises in the ESL classroom that aim to develop reading and writing skills. Course offered in English.
July 5 – July 29
11:00 – 13:30 daily
Mrs. C. Fraser **ED 211A**

Teaching French as a Second Language (TFSL)

431-301L LINGUISTICS APPLIED TO FRENCH AS A SECOND LANGUAGE. (3 credits; Prerequisite: Fluency in French.) Introduction to general linguistics; the nature and function of language; the relations of current linguistic theories to the selection, progression, presentation and fixation of French Program content; examination and preparation of teaching and remedial materials related to French as a Second Language. Course offered in French.
June 1 – June 25
16:45 – 19:00 daily
Limited Registration
Mrs. A. Leguillon **ED 211**

431-344T TEACHING FRENCH AS A SECOND LANGUAGE ELEMENTARY SCHOOL. (3 credits; Prerequisite: High degree of French fluency.) Principles of second-language teaching and their application to the teaching of French as a second language at the elementary school; an intensive study of curriculum; objectives and development; special second-language teaching strategies and techniques; examination and preparation of teaching and testing materials; lesson planning; exercises in micro-teaching situations. Course offered in French.
July 5 – July 29
11:00 – 13:30 daily
Limited Registration
Mr. F. Tremblay **ED 437**

PHYSICAL EDUCATION

† **434-492L PSYCHOLOGY OF MOTOR PERFORMANCE.** (3 credits.) This course is concerned with selected psychological factors in terms of their relationship to the acquisition of motor skills, that is, how they affect the skill acquisition of the individual and how the activity patterns of the individual affect the psychological factors.
June 1 – June 25
Times: T.B.A.
Limited Registration **CURRIE 305**

434-494C PRINCIPLES AND CURRICULUM DEVELOPMENT IN PHYSICAL EDUCATION. (3 credits; Prerequisite: 435-444 or 435-374 or 435-371.) Directed towards an understanding of the important principles which should be the foundation of a modern program in physical education; student's role in the development, implementation and evaluation of the physical education curriculum.
May 3 – May 28
9:00 – 11:30 daily
Text: Willgoose, C., *The Curriculum in Physical Education,* Prentice-Hall, 1979.
Limited Registration
Professor Riley **CURRIE 305**

† **434-495C SCIENTIFIC PRINCIPLES OF ATHLETIC TRAINING.** (3 credits; Prerequisites: 434-331 and 434-491.) Application of physiological and kinesiological principles in the selection, and evaluation of athletic and physical fitness programs. Specific topics studied will include aerobic and anaerobic training, interval training, circuit training, weight training for muscular strength and endurance, flexibility, motor ability, obesity and energy balance. Laboratory/activity periods.
May 3 – May 28
8:00 – 11:00 daily
Dr. Dallaire **CURRIE 400**

RELIGION AND PHILOSOPHY IN EDUCATION

† **415-200T THE REVELATION PROCESS TODAY.** (3 credits.) An examination of God acting in time and space as recorded in the Jewish and Christian traditions.
July 5 – July 29
8:00 – 10:30 daily
Text: Moran, Gabriel, *Theology of Revelation,* Herder, New York, 1966.
Limited Registration
Professor Jeffery **ED 433**

† **415-209T THE SEARCH FOR AUTHENTICITY.** (3 credits.) A search for meaning in contemporary living as reflected in selected authors.
July 5 – July 29
11:00 – 13:30 daily
Limited Registration
Professor Lawlor **ED 433**

421-302C THEMES IN PROTESTANT EDUCATION. (3 credits.) An introduction to the major themes, in Protestant theology and in Biblical literature, applicable to the curricula approved for use in the Protestant schools of Québec. Themes include the meaning of faith, salvation, and church, and the major persons and events in the Old and New Testaments.
May 3 – May 28
16:30 – 18:30 daily
Limited Registration **ED 433**

423-309T THE RELIGIOUS QUEST. (3 credits.) An approach to the study of religious experience as expressed in humanity's major religious tradi-

tions, especially Christianity, Judaism, Islam, Hinduism, and Buddhism.
July 5 – July 29
8:00 – 10:30 daily
Limited Registration
Professor Pinto **ED 434**

423-324L VALUES AND HUMAN SEXUALITY. (3 credits.) Human sexuality in the context of society, moral and religious development. The course will focus on principles and goals underlying values and moral education as applied to sexual behaviour.
June 1 – June 25
16:30 – 18:30 daily
Limited Registration
Professor Lawlor **ED 433**

ADMINISTRATION AND POLICY STUDIES

Administration

411-394T ADMINISTRATION OF EDUCATION IN QUÉBEC. (3 credits.) An introduction to the system of administration and decision-making in the public schools of the Province as these relate to teachers. Consideration will be given to staff relationships, the politics of education, finance and administrative roles at all levels of the system.
July 5 – July 29
11:00 – 13:30 daily
Limited Registration **ED 436**

411-450T CURRICULUM ALTERNATIVES. (3 credits; Prerequisite: Permission of Dr. Shore (392-8803); Corequisite: 414-457T.) An examination of various curriculum designs which cross boundaries of subject, method and culture, and the applications to programs for different populations of students.
July 2 – July 30
Times: With 414-457T, 9:00 – 15:00 daily including field experience.
Limited Registration
Dr. Patton

EDUCATIONAL PSYCHOLOGY AND COUNSELLING

Educational Media

432-303T PHOTOGRAPHY. (3 credits.) An introduction to the history, utilization, research and principles of photography as it relates to education, with an emphasis on developing the visual literacy and basic photographic techniques of teachers. The course will consist of lectures, seminars and production exercises.
July 5 – July 29
8:00 – 10:30 daily
Limited Registration **ED 327**

432-409T SPECIAL TOPICS IN EDUCATIONAL MEDIA. Introduction to Microcomputers. (3 credits.) An introductory course for instructors withlittle or no knowledge of micro-computers. Emphasis is on developing criteria for evaluating the merits of computer programs, languages and hardware, as well as experience in applying computers to the solution of classroom problems.
July 5 – July 29
11:00 – 13:30 daily
Limited Registration **ED 327**

Educational Psychology

414-377T ADOLESCENCE AND THE PROCESS OF EDUCATION. (3 credits.) Development of personality and social behaviour in adolescence. Problems relating to self-concept, academic achievement, relationships with others and development of values in a changing culture. Some attention to current criticisms of the school as an agency involved in adolescent development.
July 5 – July 29
11:00 – 13:30 daily
Professor Pupo **ED 219**

Education and Psychology of the Gifted

414-346C TALENTED AND GIFTED STUDENTS. (3 credits.) The psychology and education of exceptionally able children. Definitions, assessment, types of programs and goals, and teacher requirements. The course combines theoretical background and practical concerns. (Includes a field experience component.)
May 3 – May 28
16:30 – 19:00 Monday and Wednesday
Limited Registration
Professor Shore **ED 434**

414-457T PRACTICUM IN THE EDUCATION OF THE GIFTED. (3 credits; Prerequisites: 414-346 or equivalent introduction to the psychology and education of the gifted **and** permission of Dr. Shore (392-8803); Corequisite: 411-450T.) Workshops and practical experience in planning, providing and evaluating educational offerings to gifted students in supervised demonstration class settings and in small groups.
July 2 – July 30
Times: With 411-450T, 9:00 – 15:00 daily including field experience.
Limited Registration
Dr. Patton

Human Relations and Family Life Education

412-408T SEMINAR IN SPECIAL TOPICS. Counselling for the middle years. (3 credits.) An examination of current literature on development during mid-life (the 30's through the 50's), with emphasis on theories of mid-life development and approaches to counselling for mid-life transitions. The course examines critical areas of emotional,

social, cognitive and physical change in middle age, with some examination of career change and varying lifestyles.
July 5 – July 29
11:00 – 13:30 daily
Text: Norman, William H., and Scaramella, Thomas J., *Mid-Life; Developmental and Clinical Issues,* Brunner/Mazel, New York, 1980.
Limited Registration
Professor Talley **ED 434**

414-495T SEMINAR IN SPECIAL TOPICS. Orientation to the Later Years. (3 credits.) A pragmatic course, focussing on issues relevant to the later years. Designed to encourage a greater awareness of these issues **for us all at any age**, it will direct attention—now—to the role of the educational system and of other institutions in fostering such a goal. A workshop/discussion format will be followed.
July 5 – July 29
8:00 – 10:30 daily
Mrs. Peacock **ED 334**

Special Education

414-340T EDUCATION OF EXCEPTIONAL CHILDREN. (3 credits.) Introduction to the education of exceptional children; characteristics, classification, needs of exceptional children; developmental and corrective programs; areas of current research.
July 5 – July 29
8:00 – 10:30 daily
Limited Registration **ED B163**

414-341T GENERAL METHODS IN SPECIAL EDUCATION. (3 credits.) Class organization, teaching methods, assessments of education level, setting objectives, grouping, individual programming and reporting.
July 5 – July 29
8:00 – 10:30 daily
Limited Registration **ED 211A**

414-342T ORGANIZATION OF SPECIAL EDUCATION PROGRAMS. (3 credits; Pre- or Corequisite: 414-341.) Needs of EMR, slow-learning and emotionally-disturbed children: characteristics, school programs, evaluation of progress, integration into the community.
July 5 – July 29
11:00 – 13:30 daily
Limited Registration **ED 334**

414-343T INTRODUCTION TO DIAGNOSIS AND ASSESSMENT. (3 credits.) Principles and procedures in the evaluation of pupil growth and achievement. Emphasis on the use and interpretation of tests.
July 5 – July 29
8:00 – 10:30 daily
Limited Registration **ED 436**

414-344T PRACTICUM IN DIAGNOSIS AND ASSESSMENT OF LEARNING PROBLEMS. (3 credits; Prerequisite: 414-343.) A supervised practicum in the use of various tests and measures in learning problems of children; developing prescriptive teaching programs.
July 5 – July 29
11:00 – 13:30 daily
Limited Registration **ED 424**

414-440T COGNITIVE AND PSYCHOMOTOR PROBLEMS OF EXCEPTIONAL CHILDREN. (3 credits; Prerequisites: 414-341 and 414-342.) Teaching methods appropriate to individual and small group instruction to overcome a variety of learning problems. Emphasis on perceptual difficulties.
July 5 – July 29
11:00 – 13:30 daily
Limited Registration **ED 416**

414-441T BEHAVIOURAL PROBLEMS OF EXCEPTIONAL CHILDREN. (3 credits.) Teaching methods appropriate to the needs of pupils with emotional and behavioural problems. Methods presented will include behavioural modification techniques.
July 5 – July 29
8:00 – 10:30 daily **ED 211**

414-442T PSYCHOLOGY OF LEARNING PROBLEMS. (3 credits.) The Learning Process; personality development, perceptual dysfunction; behaviour disorders and other handicapping conditions related to learning.
July 5 – July 29
11:00 – 13:30 daily **ED B163**

414-443T SCHOOL-HOME-COMMUNITY RELATIONS IN SPECIAL EDUCATION. (3 credits.) Influence of home and community on the child, teacher-parent interviews, reporting, co-operation with hospital clinics, other professionals, etc.
July 5 – July 29
11:00 – 13:30 daily **ED 341**

414-446T SPECIAL TOPICS IN THE EDUCATION OF EXCEPTIONAL CHILDREN: Various concepts of Schizophrenia and Educational Intervention. (3 credits.)
July 5 – July 29
11:00 – 13:30 daily
Professor G. Mager **ED 431**

STUDENT TEACHING

435-422C EDUCATION IN THE NORTH—FIELD EXPERIENCE. (6 credits; Prerequisites: Education in the North—Curriculum, 433-444 or permission of Instructor and attendance at weekly seminars prior to Field Experience.) A field experience of 7-8 weeks in isolated villages on Lower North Shore, Québec, organizing and teaching Kindergarten.
May 1 – June 20 (approximately)
Times: Throughout the school day
Limited Registration
Professor Trump

GRADUATE DEGREES IN EDUCATION

Eligibility

During the Summer Session 1982, graduate courses in Education will be available only to students who have been accepted either to a graduate program in Education or as a Visiting Student for a graduate course in Education.

Visiting Students

Students wishing to take courses at the graduate level in Education, but not to work towards an Education degree may be considered if they fall into one of the following categories:

1. Graduate students from another university wishing to take a course or courses at McGill for credit at their own university may do so, provided that they submit a letter of permission from the Registrar, or other responsible official of their home university.
2. Special students (those who are not working towards a degree) who wish to take a course at McGill may do so provided that they meet the entrance requirements for the degree program in which the course they wish to take is offered.

Application Deadlines

Applicants for programs in Counsellor Education and Educational Administration must submit their application forms and supporting documents before March 1. The submission date for all other programs is April 1.

Application forms and further information may be obtained from:

Office of Graduate Studies and Research
Faculty of Education
McGill University
3700 McTavish Street
Montreal, PQ H3A 1Y2 (514) 392-8873

Course Registration

Students whose applications have been duly approved and who are registered with Graduate Faculty for a degree should complete the GRADUATE Summer Session Course Registration form and return it with a **bank draft or money order** for the full tuition fee to their Program Director NOT LATER THAN June 14. **Cash payments of more than $50.00 will not be accepted.** (Summer Session courses starting in May not later than April 30th.) Payments should be made to the order of McGill University, in Canadian funds. Personal cheques and post-dated cheques will be returned to the students.

Graduate students in Education should register in their departments at the beginning of the Summer Session. The registration dates at the front of this calendar do not apply to graduate students.

Students registered for a Master of Education degree in a teaching subject must obtain approval for the courses they wish to take from both the Academic Department and from the Faculty of Education Program Director. Formal course registration must be completed with the Faculty of Education by following the steps outlined above.

A maximum of one full course or its equivalent may be taken at any one time during Summer Session. Exceptions may be made only upon the recommendation of the Program Director and with the approval of the Director of Graduate Studies and Research in Education.

Fees

Please consult Page 11 of this announcement for information regarding non-Canadian or Canadian student tuition fees.

General Information

Graduate students in Education should consult the front section of this announcement for information concerning the following areas listed.

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Withdrawals
Refunds
Change of Name or Address
Classification of Marks
Transcripts
Parking Regulations
Bookstore Summer Schedule – 1982

N.B.: All records for graduate students in Education are maintained in the Office of Graduate Studies (Room 240). Therefore wherever "Summer Session Office" appears, please substitute "Office of Graduate Studies".

Departments and Degrees

Students should report to the Office of their Program Director on the first day of classes to be assured that all registration procedures have been completed.

Departments and Degrees	Department Chairmen Program Directors	Office Numbers
Departmentof Administration and Policy Studies in Education	R. Tali Chairman	203DH
M.A. (Educational Administration)	G. Isherwood	101DH
M.A. (History of Education)	K. Jobling	308DH
M.A. (Comparative Education)	K. Jobling	308DH
M.Ed. (Educational Administration)	R. Tali	203DH
Department of Early Childhood and Elementary Education	G. Bennett, Chairman	218
M.Ed. (Elementary Education)	L. Haworth	215
M.Ed. (Reading)	F. Greene	B1-4
Department of Education in Second Languages	J. Rebuffot, Chairman	428
M.Ed. (Teaching of English as a Second Language)	G. Terroux	420
M.Ed. (Teaching of French as a Second Language)	M. Buteau	413
Department of Education in the Arts	G. Mager, Chairman	548
M.Ed. (Teaching of Art)	L. Studham	616
Department of Educational Psychology and Counselling	H. Stutt, Chairman	505
D.Ed. (Counselling)	W. Talley	532
M.A. (Counselling)	W. Talley	532
M.Ed. (Counselling)	W. Talley	532
M.A. (Educational Psychology)	B.M. Shore	521
M.Ed. (Educational Psychology)	B.M. Shore	521
M.Ed. (Special Education)	J. Hanrahan	522
Department of Physical Education	D. Riley, Chairman	Currie Gym
M.A. (Physical Education)	G. Neil	Currie Gym
Department of Religion and Philosophy in Education	M. Jeffery, Chairman	441
M.A. (Philosophy of Education)	H. Shantz	439
Department of Secondary Education	J.M. O'Hara, Chairman	322
M.Ed. (Teaching of Biology)	W. Searles	365
M.Ed. (Teaching of Chemistry)	P. Francoeur	356
M.Ed. (Teaching of English)	P. Dias	331
M.Ed. (Teaching of Geography)	J. Wolforth	317
M.Ed. (Teaching of Home Economics)	E. Reid	330
M.Ed. (Teaching of History)	H. Morrison	324
M.Ed. (Teaching of Mathematics)	D. Modafferi	333
M.Ed. (Teaching of Physics)	P. Landry	353

EARLY CHILDHOOD AND ELEMENTARY EDUCATION

Elementary Education

433-649C PERSPECTIVES ON ELEMENTARY SCHOOL PRACTICES. (Half course.) An examination of the reciprocal impact of elementary school child and milieu. Focus on elementary schools and the elaboration of mandated curriculum and pedagogical approaches appropriate for the needs of pupils, parents and communities. (This is a required course in the M.Ed. Elementary Education program.)

May 3 – June 9
17:00 – 20:00 Monday and Wednesday
Professor Stinson **ED 327**

433-650C TRADITIONAL EARLY CHILDHOOD PRACTICES. (Half course.) Traditional practices related to kindergartens, Montessori programs, and nursery and infant schools in Canada, the United States, and other countries. Issues emerging from these practices will be examined.
May 4 – June 10
17:00 – 20:00 Tuesday and Thursday
Professor Slaughter **ED 334**

433-651T MODELS OF PROGRAMS IN EARLY CHILDHOOD EDUCATION. (Half course.) Alternative models of early childhood education programs, such as the Ypsilanti, the Bereiter-Engelmann, and the Bank Street programs, with special emphasis on their development and implementation. Investigations based on established theories of child development, goals, objectives and ensuing instructional strategies.
July 5 – July 29
8:00 – 10:30 daily
Professor Trump **ED 416**

Reading

433-617C SPECIAL TOPICS IN READING EDUCATION: Classroom Implications of Current Research on Reading and Writing. (Half course.) Consideration of recent research and translation of these results into teaching practices.
April 19 – June 3
17:00 – 20:00 Monday and Thursday
Professor Maguire **ED 248**

433-633T PRACTICUM IN REMEDIAL READING. (Half course; Prerequisite: Permission of Director of Reading Centre; Corequisite: 433-634T.) Supervised case studies involving comprehensive diagnostic assessments and planning for the teaching of appropriate remedial reading programs.
Dates: 2 Saturdays in June plus
July 5 – July 30
Times: 8:30 – 11:15 daily
Limited Registration

433-634T SUPERVISION OF REMEDIAL READING. (Half course; Prerequisite: Permisison of Director of Reading Centre; Corequisite: 433-633T.) Development and supervision of a remedial reading program involving other teachers as well as parents and children.
Dates: 2 Saturdays in June plus
July 5 — July 30
Times: 11:15 – 14:00 daily
Limited Registration

SECONDARY EDUCATION

English

425-665T SELECTED TOPICS IN THE TEACHING OF ENGLISH II. (Half course.) An opportunity to develop a thorough understanding of theory and practice in an area of the English curriculum. Advanced study on the topic of assessment in English.
July 5 – July 29
11:00 – 13:30 daily
Limited Registration **ED 211**

RELIGION AND PHILOSOPHY IN EDUCATION

Philosophy

423-630C FOUNDATIONS OF RELIGIOUS EDUCATION. (Half course.) A study of the philosophical and theological bases of religious education and their significance in the formulation of goals and objectives.
April 13 – May 27
16:30 – 19:30 Tuesday and Thursday
Text: Groome, Thomas, *Christian Religious Education,* Harper & Row, New York, 1980.
Limited Registration
Professor Jeffery **ED 437**

ADMINISTRATION AND POLICY STUDIES

Administration

411-635C FISCAL ACCOUNTABILITY FOR THE SCHOOLS. (Half course; Prerequisite: Permission of the Department.) Consideration of the schools' responsibility to the public in maintaining high quality education within the limitations of accountability and organizational framework. Budgeting and evaluation of pupil progress will be studied as the measures of the schools' fulfilment of responsibility.
May 3 – June 25
18:00 – 21:00, Tuesday and Thursday **ED 327**

411-642T DEVELOPMENT AND ADMINISTRATION OF THE SCHOOL CURRICULUM. (Full Course; Prerequisite: Permission of the Department.) This course deals with the development of the school curriculum at various age levels and in different settings with the organization of the school and the classroom to implement curricular plans. A study will be made of a variety of organizational schemes and of their development and implementation.
July 5 – August 13
8:00 – 10:30 daily **ED 424**

411-647C RESOURCE UTILIZATION IN EDUCATION SYSTEMS. (Half Course; Prerequisite: Permission of the Department.) An introduction to planning—programming—budgeting systems in education. The historical development, theoretical foundations, mechanics, potentialities and limitations of this approach to resource utilization analysis and planning will be discussed with particular reference to those aspects of alternative approaches employed in a proposal for educational systems.
May 3 – June 25
18:00 – 21:00 Tuesday and Thursday **ED 424**

EDUCATIONAL PSYCHOLOGY AND COUNSELLING

COUNSELLING

412-602C PHILOSOPHY OF GUIDANCE. (Half Course.) Philosophical foundations of guidance; history, growth and recent trends of the guidance movement. Orientation to the field in respect to the functions, scope, organization and administration of counselling services. (M.Ed. Counselling students or approval Program Director.)
May 3 – June 15
17:00 – 20:00 Monday and Wednesday
Professor Torbit **ED 539**

412-603C THEORIES OF PERSONALITY. (Half Course.) Study and comparison of contemporary theories of personality. Emphasis upon theories having significance for counselling and assessment principles. Recent research in personality theory. (M.Ed. Counselling students or approval of Program Director.)
May 3 – June 15
13:00 – 16:00 Monday and Wednesday
Professor Maroun **ED 539**

412-604C DYNAMICS OF GROUP WORK. (Half Course.) Study of group organization, with opportunity to develop skills in group leadership. Interpretation of group interaction and typical roles played by members in groups. (M.Ed. Counselling students or approval of Program Director.)
May 4 – June 15
17:00 – 20:00 Tuesday and Thursday
Limited Registration
Professor Paré **ED B121**

412-605T INTRODUCTION TO THEORIES IN COUNSELLING. (Half Course.) Correlation and interpretation of counselling data and the study of individual cases. Emphasis on the process in counselling relationship, and counselling techniques. (M.Ed. Counselling students or approval of Program Director.)
July 5 – July 29
11:00 – 13:30 daily
Professor Westwood **ED B121**

412-611C INDIVIDUAL TESTING. (Half course.) This course is intended to make students familiar with the individual tests in common use and to give them some degree of proficiency in their application. Special emphasis will be placed on the Wechsler scales. There will be opportunities for diagnostic testing under supervision. (M.Ed. Counselling students or approval of Program Director.)
May 4 – June 15
17:00 – 20:00 Tuesday and Thursday
Limited Registration
Professor Talley **ED 434**

412-615T MODELS OF CONSULTATION. (Half course.) Presents current psychological models underlying consultative/collaborative interactions with parents, teachers and allied professionals. Theories and techniques for assessing maladaptive behaviour and effecting behaviour change of individuals in family, educational and other instructional settings are presented. (M.Ed. Counselling students or approval of Program Director.)
July 5 – July 29
8:00 – 10:30 daily
Professor Westwood **ED 433**

412-640T ADOLESCENT DEVELOPMENT. (Half Course.) Normal development of adolescents through young adulthood. Problems and concerns of adolescence which occur with physical, social and personal development, in the context of family and school adjustment. (M.Ed. Counselling students or approval of Program Director.)
July 5 – July 29
11:00 – 13:30 daily
Professor Talley **ED 539**

412-641T PSYCHOLOGICAL TESTING. (Half course.) Theory and application of group tests appropriate for adolescents and adults. Specific instruments; intelligence, aptitude, interest and personality, analyzed in terms of basic concepts, reliability, validity and practical utilization. (M.Ed. Counselling students or approval of Program Director.)
July 5 – July 29
14:00 – 16:30 daily
Ms Kahn **ED 433**

412-662C INFORMATION SERVICES. (Half course.) Procedures and systems of utilizing and communicating social, educational and occupational information and materials. Structure of occupations, theories of vocational development. (M.Ed. Counselling students or approval of Program Director.)
May 3 – June 15
9:00 – 12:00 Monday and Wednesday
Dr. Mendelson **ED 539**

412-663T ORGANIZATION AND ADMINISTRATION OF STUDENT PERSONNEL SERVICES. (Half Course.) The functions, relationships, organization and administration of guidance services in the secondary school and student personnel services. (M. Ed. Counselling students or approval Program Director.)
July 5 – July 29
8:00 – 10:30 daily
Professor Mulherin **ED 539**

EDUCATIONAL PSYCHOLOGY

414-610C EDUCATIONAL MEASUREMENT. (Half course; Prerequisite: Enrolment in a graduate program.) Statistical measurements in education, graphs, charts, frequency distributions, central tendencies, dispersion, correlation, and sampling errors.

April 19 – May 31
16:30 – 19:30 Monday and Thursday **ED B180**

414-610T EDUCATIONAL MEASUREMENT. (Half course; Prerequisite: Enrolment in a graduate program.) See course description for 411-610C.
July 5 – July 29
8:00 – 10:30 daily **ED B180**

414-622C ADAPTING EDUCATIONAL PROCEDURES TO INDIVIDUAL DIFFERENCES. (Full course.) Differences among students and teachers on a wide variety of psychological qualities and an attempt to provide optimal learning situations in that light. Other topics include the psychological bases for the individualization of instruction, remedial learning, and programs for exceptionally talented students.
April 14 – June 31
17:00 – 20:00 Monday and Wednesday
Limited Registration
Professor Sokolyk **ED 424**

414-640C LEARNING AND COGNITIVE PROCESSES. (Full course; Prerequisite: Permission of Instructor.) Current research on the processes humans use to recognize, attend to, acquire, retain, produce and transform meaningful information. Attention, perception, learning, memory, comprehension, problem solving and language. Analyses of cognitive processes underly-school learning and individual differences in learning and their implications for instructional design and diagnosis of learning difficulties.
April 14 – July 31
Times: Individually arranged
Limited Registration
Professors Bracewell, Frederiksen and Groen

SPECIAL EDUCATION

414-642T EDUCATION OF EXCEPTIONAL CHILDREN I. (Half course.) Introduction to programs and problems of educating handicapped or gifted children. Course offered with 414-340T; graduate students will have extra work.
July 5 – July 29
8:00 – 10:30 daily **ED B163**

414-643C EDUCATION OF EXCEPTIONAL CHILDREN. (Half course.) Introduction to programs and problems of educating handicapped or gifted children.
May 3 – June 22
16:30 – 19:30 Tuesday
Plus Individual Tutorials **ED 416**

414-665C SEMINAR I: REMEDIATION OF SELECTED LEARNING DIFFICULTIES. (Half course; Prerequisite: Students must be in Phase II of M.Ed. program.) Directed and independent reading as well as opportunities for group discussion. Designed to assist the student in developing solutions to practical problems related to either the Field Experience or the Internship.
April 14 – June 29
Times: Individually arranged depending on Instructor

414-656T CLINIC: REMEDIATION OF SELECTED LEARNING DIFFICULTIES. (Full course; Prerequisite: Students must be in Phase II of M.Ed. program.) Participation as a special education teacher in an interdisciplinary team; planning and carrying out of remedial programs for individual pupils; working with parents of children with learning difficulties.
July 5 – July 29
Times: Students work all day in clinic settings

414-668T LEARNING PROBLEMS OF EXCEPTIONAL CHILDREN—PERSONALITY DEVELOPMENT. (Half course.) This course will examine normal personality development from several theoretical viewpoints. Exceptional development will also be examined with emphasis on the learning problems which can arise.
July 5 – July 29
8:00 – 10:30 daily **ED 431**

414-669T LEARNING PROBLEMS OF EXCEPTIONAL CHILDREN—COGNITIVE DEVELOPMENT. (Half course.) The cognitive development of children and adolescents and the implications for exceptional children. Attention to language and perceptual motor development.
July 5 – July 29
11:00 – 13:30 daily **STBIO W2/2B**

TEACHING OF CHEMISTRY

180-607T CHEMISTRY FOR TEACHERS: SPECIAL TOPICS II. (Half course; Prerequisite: Enrolment in an M.Ed. program.) Various topics in chemistry of interest to teachers will be presented. The course content can vary from year to year.
July 5 – August 2
10:30 – 12:30 daily **DM 10**

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McGill University
The Registrar's Office
845 Sherbrooke Street West
Montreal, PQ, Canada, H3A 2T5

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Undergraduate Scholarships and Awards

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Montreal, PQ, Canada H3A 2T5

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1 ENTRANCE SCHOLARSHIPS AND AWARDS

1.1 GENERAL INFORMATION

The policy of the University is to recognize and honour scholarship, and the University's system of entrance scholarships and awards is designed to enable good students from all parts of Canada to attend McGill.

The $5,000 Greville Smith Scholarships, the J.W. McConnell Scholarships in Science and Engineering, the James McGill Scholarships, the R.E. Powell Scholarships, the James Fraser Jewell Scholarships, the Morris W. Wilson Scholarships and the James Davidson McCall Scholarships, all valued at $2,500 each, are available for candidates demonstrating outstanding academic ability and qualities of leadership through participation in community affairs, student activities or athletics. Students must apply for these scholarships by *March 1*, prior to entrance into a degreee program.

The J.W. McConnell Awards in Science and Engineering and the James McGill Awards, valued at $500 each, are available for candidates demonstrating high first class academic achievement. Students must apply for these awards by *March 1* for September awards and by *November 1* for January awards.

A student who has been selected for an entrance scholarship or award and is in financial need, may have the amount of the award substantially augmented to a total of full tuition fees plus the cost of board, residence and books depending on need. All applicants for aid must first apply for maximum government grants or other assistance for which they may be eligible. For further information on financial assistance, see Section 3.

Entrance scholarships and awards are open only to Canadian citizens or permanent residents who will have one year's residence in Canada at the time of registration. They are awarded only to students entering a full-time undergraduate degree program, including Dentistry, Law and Medicine. Students wishing to be considered for entrance scholarships and awards must complete an Application for Entrance Scholarships which may be obtained from the Scholarships Office, McGill University, 845 Sherbrooke St. West, Montreal, PQ H3A 2T5. Applications must be submitted by the deadlines specified above.

1.2 ENTRANCE SCHOLARSHIPS AND AWARDS

SIR EDWARD BEATTY MEMORIAL ENTRANCE SCHOLARSHIPS. – $700 each. Established in 1927 by the late Sir Edward Beatty, former Chancellor of the University. Available to students with outstanding merit entering a full-time undergraduate degree program in the Faculty of Arts or of Science. Awarded by the University Scholarships Committee and renewable provided the holder maintains an academic standing satisfactory to the Committee.

DOFASCO ENTRANCE SCHOLARSHIPS. – Three scholarships of $1,250 each available to Canadian citizens or permanent residents. One awarded annually to a student entering Metallurgical Engineering, renewable until graduation provided satisfactory academic standing is maintained. Awards will be made by the University Scholarships Committee upon the recommendation of the Selection Committee of the Department of Mining and Metallurgical Engineering.

HUDSON'S BAY COMPANY SCHOLARSHIPS. – Two awards of $750 each to students entering the First Year of the Bachelor of Commerce program, tenable over the usual three years of the program, renewal contingent upon maintaining high academic standing. Awarded by the University Scholarships Committee upon the recommendation of the Faculty of Management Scholarships Committee. Preference will be given to applicants whose mother tongue is French.

JAMES FRASER JEWELL MEMORIAL SCHOLARSHIPS. – Established in 1977 by a bequest from James Fraser Jewell and awarded under the same conditions as the R.E. Powell Scholarships described below.

HARRY LEIBOVITCH SCHOLARSHIPS. – $700 each. Established in 1959 by a bequest from Harry Leibovitch. Available to students entering any full-time undergraduate degree program. Renewable provided the holder maintains an academic standing satisfactory to the University Scholarships Committee.

SIR WILLIAM MACDONALD ENTRANCE SCHOLARSHIPS. – $1,000 each. Established in 1881 by the late Sir William Macdonald. Available to students with outstanding merit entering any full-time undergraduate degree program. Awarded by the University Scholarships Committee and renewable provided the holder maintains an academic standing satisfactory to the Committee.

JAMES DAVIDSON McCALL SCHOLARSHIP. – Value $2,500. Founded by his family in memory of James Davidson McCall, B.Eng., who was accidentally killed in September 1953, the year of his graduation. Awarded to students with outstanding merit from anywhere in Canada proceeding to degrees in any faculty with a preference to students entering Engineering. Renewable up to a maximum of four years provided the holder maintains a standard satisfactory to the University Scholarships Committee and maintains a minimum academic load of 27 sessional credits (excluding summer

courses). While academic standing is of primary importance, account will also be taken of qualities of leadership and participation in community affairs, student government or athletics.

J.W. McCONNELL AWARDS IN SCIENCE AND ENGINEERING. – $500 each. Made possible through the generous donation of the late J.W. McConnell. Awarded to students with outstanding merit from anywhere in Canada proceeding to degrees in any field of Science and Engineering. Renewable in competition on the basis of high academic standing. Awarded by the University Scholarships Committee. Candidates must be Canadian citizens or permanent residents with one year's residence in Canada at the time of registration.

J.W. McCONNELL SCHOLARSHIPS IN SCIENCE AND ENGINEERING. – $2,500 each. Made possible through the generous donation of the late Mr. J.W. McConnell. Awarded to students with outstanding merit from anywhere in Canada proceeding to degrees in any field of Science and Engineering, and renewable up to a maximum of four years, provided the holder maintains a standard satisfactory to the University Scholarships Committee and maintains a minimum academic load of 27 sessional credits (excluding summer courses). While academic standing is of primary importance, account will also be taken of qualities of leadership and participation in community affairs, student government or athletics. Candidates must be Canadian citizens or permanent residents with one year's residence in Canada at the time of registration.

JAMES McGILL AWARDS. – $500 each. Awarded to students with outstanding merit from anywhere in Canada proceeding to degrees in any faculty. Awarded under the same conditions as the J.W. McConnell Awards described above.

JAMES McGILL SCHOLARSHIPS. – $2,500 each. Awarded under the same conditions as the R.E. Powell Scholarships described below.

McGILL ALUMNAE MABEL KING SCHOLARSHIP. – $1000, established in memory of the late Mabel King and made possible by a generous bequest from her estate to the McGill Alumnae Society. Awarded by the University Scholarships Committee to a distinguished student entering any faculty, preference to a woman student. Tenable for a maximum of three years provided the holder maintains an academic standing satisfactory to the University Scholarships Committee.

McGILL UNIVERSITY CONTINGENT CANADIAN OFFICERS TRAINING CORPS MEMORIAL SCHOLARSHIPS. – $1,000 each. Established in 1978 by the Trustees of the McGill C.O.T.C. Volunteers' Memorial Trust Fund. Available to students with outstanding merit entering any full-time undergraduate degree program. Awarded by the University Scholarships Committee and renewable provided the holder maintains an academic standing satisfactory to the Committee.

MINING AND METALLURGICAL ENGINEERING ENTRANCE SCHOLARSHIPS. – Established by the department from funds given by industry and private donations. To be awarded on merit, a maximum of ten scholarships of $1,500 each to students entering the Mining Engineering and Geophysics Program and ten of $1,500 each to students entering Metallurgical Engineering. Renewable in whole or in part until graduation depending on academic standing and other awards held. Awards will be made by the University Scholarships Committee on recommendation from the Department Selection Committee.

NATIONAL PROGRAM SCHOLARSHIPS. – Entrance scholarships of $2,500 each, established by the generosity of donors to the McGill Development Fund. Awarded by the University Scholarships Committee on the recommendation of the Faculty of Law, to students with distinguished records in pre-law studies, registering for either the B.C.L. or LL.B. degree and with the intention of proceeding to the second degree in the National Program at McGill. Tenable for four years of the National Program if candidate maintains distinguished academic standing. Apply to the Faculty of Law Admissions Office.

J.B. PHILLIPS CHEMICAL ENGINEERING ENTRANCE AWARD. – $500, to a student entering the First Year of the undergraduate program in Chemical Engineering. Awarded solely on the basis of merit among entrants with outstanding academic achievement in their pre-university programs. Tenable for one year only and awarded to a Canadian citizen or permanent resident with one year's residence in Canada. Awards will be made by the University Scholarships Committee on recommendation from the Department of Chemical Engineering Selection Committee.

R.E. POWELL SCHOLARSHIPS. – $2,500 each. Established in 1976 by the family of the late R.E. Powell, Chancellor of McGill University from 1957 to 1964. Awarded to students with outstanding merit from anywhere in Canada proceeding to degrees in any faculty. Renewable up to a maximum of four years provided the holder maintains a standard satisfactory to the University Scholarships Committee and maintains a minimum academic load of 27 sessional credits (excluding summer courses). While academic standing is of primary importance, account will also be taken of qualities of leadership and participation in community affairs, student government or athletics. Candidates must be Canadian citizens or permanent residents with one year's residence in Canada at the time of registration.

GREVILLE SMITH SCHOLARSHIPS. – These prestigious scholarships were established in 1977 with a generous bequest to the Martlet Foundation from H. Greville Smith, a former member of the

Board of Governors and a distinguished industrialist and philanthropist, who was prominent in educational and scientific pursuits. They are awarded to outstanding students entering an undergraduate course of study at McGill University who have shown promise of future success and responsible citizenship. While academic standing is of primary importance, account will also be taken of qualities of leadership and participation in community affairs, student government or athletics. They are not related to financial need, and are open to Canadian citizens or permanent residents with one year's residence in Canada at the time of registration.

Valued at $5,000 per annum, these scholarships are renewable annually to a maximum of 4 years in any full-time undergraduate degree program and in addition, Dentistry, Law and Medicine. For renewal of the scholarship, the holder must continue to meet the criteria to the satisfaction of the Greville Smith Scholarships Committee.

SEBA ABBOTT SMITH MEMORIAL SCHOLARSHIPS. – $700 each. Renewable until completion of first degree provided the holder maintains an academic standing satisfactory to the University Scholarships Committee.

MORRIS W. WILSON MEMORIAL SCHOLARSHIPS. – $2,500 each. Established in 1946 by contributions from a large number of friends and associates of the former Chancellor. Awarded under the same conditions as the R.E. Powell Scholarships described above.

DAVID WOLFSON SCHOLARSHIPS. – $1,000 each. Established in 1959 by donations from Mr. Charles Wolfson and his son, David. Available to students with outstanding merit entering a full-time undergraduate degree program. Awarded by the University Scholarships Committee and renewable provided the holder maintains an academic standing satisfactory to the Committee.

EDWARD C. WOOD SCHOLARSHIPS. – $700 each. Established by Mr. Edward C. Wood, a former member of the Board of Governors. Available for students from anywhere in Canada entering a full-time undergraduate degree program in any faculty. The scholarships are renewable provided the holder maintains an academic standing satisfactory to the University Scholarships Committee.

The following funds have special conditions such as graduation from a specific high school or residence in a particular area. Students who submit an Application for Entrance Scholarships are automatically considered for all scholarships for which they are known to be eligible.

CHRISTIE-STORER SCHOLARSHIP. – $1000, endowed by the above-named Chapter of the I.O.D.E. in memory of the men of St. Lambert who fell in the Great War, 1914-18. Awarded to a student residing in St. Lambert who obtains high marks for admission to a full-time undergraduate degree program. Preference will be given to graduates of Chambly County High School. Tenable for one year only.

CONSUMERS GLASS CO. LTD/FRANK P. JONES EDUCATION AWARDS. – Open to children or wards of employees and retired employees of Consumers Glass Company Limited for a full-time course of study in any Canadian university or college recognized by the Association of Universities and Colleges of Canada. Value $1,300 per year until completion of first degree. Awards are automatically renewed provided the students establish continuing eligibility and successfully complete the preceding academic year. Further information and application forms which must be submitted by June 30 may be obtained from the Director of Awards, Association of Universitites and Colleges of Canada, 151 Slater St., Ottawa, ON., K1P 5N1.

GEORGE HERRICK DUGGAN MEMORIAL SCHOLARSHIPS (AMCA International Limited). – Offered by AMCA International Limited, open to all employees of the Company (who have been in continuous service of the Company for at least one year) and its wholly owned subsidiary companies, and to their sons and daughters. Certificates of eligibility for the scholarship must be obtained from the Personnel Department of the Company.

Valued at $800 each, the scholarships are awarded on the basis of high academic standing and are renewable until completion of the first undergraduate degree provided the holder maintains an academic standing satisfactory to the University Scholarships Committee.

In exceptional cases qualified students already in course at McGill may be considered for this scholarship.

GEORGE HERRICK DUGGAN MEMORIAL SCHOLARSHIPS (DOMINION ENGINEERING WORKS, LIMITED) – Offered by Dominion Engineering Works, Limited, open to all its employees (who have been in continuous service of the Company for at least one year) and those of its wholly owned subsidiary companies, and to their sons and daughters. Certificates of eligibility for the scholarship must be obtained from the Employee and Community Relations Section of the Company.

Awarded under the same conditions as the Duggan Scholarships described above.

GRACE FAIRLEY TRAFALGAR SCHOLARSHIP. – $500, founded in 1913 by friends and former pupils of the late Miss Grace Fairley, to signalize her long and faithful service to education as head of the Trafalgar Institute. Tenable for one year only and awarded to a former graduate of Trafalgar School who obtains high marks for admission to any full-time undergraduate degree course.

NARCISSA FARRAND (MRS. N. PETTES) SCHOLARSHIPS. – $750 each. Founded and endowed by Mr. and Mrs. H.V. Truell, of Sweet Acre,

Knowlton, Québec. Renewable until completion of a first degree provided the holders maintain a standing satisfactory to the University Scholarships Committee. Awarded to candidates from the Eastern Townships who obtain high marks for admission to any full-time degree course and who have had their domicile in the Eastern Townships for at least five years.

SCHOLARSHIPS GRANTED BY THE GRADUATES SOCIETY OF THE DISTRICT OF BEDFORD. – $1000, awarded to a student who has taken Grades IX, X, and XI in one of the High Schools of the District of Bedford and who obtain high marks for admission to any full-time undergraduate degree course. May be divided between two students, and is awarded by the Society upon the recommendation of the University Scholarships Committee.

SIDNEY J. HODGSON SCHOLARSHIPS. – Two scholarships of $800 each, founded by Arthur J. Hodgson,. Esq., in memory of his son, Sidney James Hodgson, a student of the First year in Arts, who was killed in action on September 17, 1918, while serving in the 66th Battery of the Canadian Field Artillery. Awarded to former graduate pupils of Westmount High School who obtain high marks for admission to any full-time undergraduate degree course.

DUNCAN McCASKILL SCHOLARSHIPS. – $1000 each. Restricted to students from Nova Scotia. Renewable until completion of a first degree provided the holder maintains an academic average satisfactory to the University Scholarships Committee.

RALSTON AWARD. – $900, established by bequests from Mrs. Hazel Jerrine Ralston and Miss Hazel Vivian Ralston in memory of their sons and brothers respectively, Sgt. Pilot Herbert James Ralston and Lt. William Edward Ralston who were killed in the Second World War and who were both graduates of Westmount High School. Awarded to a former graduate student of Westmount High School who has good academic standing and is entering any full-time undergraduate degree course.

1.3 FINANCIAL ASSISTANCE

For information on financial assistance, including bursaries and loans, see Section 3.

2 AWARDS TO McGILL STUDENTS IN COURSE

2.1 GENERAL INFORMATION

The University Scholarships Committee is responsible for awarding most entrance scholarships as well as the majority of in-course awards for which students in more than one faculty are eligible. The Committee is also responsible for overseeing all scholarship policy of the University and is composed of Chairmen of Faculty Scholarships Committees, representatives from the University at large and student members. Faculty scholarships and awards are made by the individual Faculty Scholarships Committees, and students should consult the appropriate section of this announcement for regulations and information concerning these awards.

Once a student is in-course at McGill, all undergraduate scholarships, prizes and medals are awarded on the basis of year-end examination results and no applications are required.

A full-time student will be known as a "Faculty Scholar" when academic performance is outstanding in the opinion of the University Scholarships Committee. The decision, based on the previous session's work, will be made upon the recommendation of the Faculty Scholarships Committees. This designation, while carrying no monetary reward, is an official University recognition of the student's achievements and will be noted on the student's transcript.

Scholarships are awarded only to full-time students taking a program of study leading to a degree. Only those students who have completed at least 27 credits during the regular session (excluding summer session) will be eligible for scholarships and awards. However, students who maintain an academic load of at least 24 credits during the regular session will be allowed to hold scholarships and awards granted to them on the basis of the previous year's work. Final year students who, because of degree program requirements, do not need a full 24 credits to complete their degrees should contact the Scholarships Office.

All awards, with the exception of prizes and major entrance scholarships, are credited to the tuition fee accounts of students for the following academic year. As a general rule, scholarships and awards are tenable only at McGill, and awards made to students who do not return to McGill the following year are considered relinquished. However, students who are accepted into a government sponsored interprovincial or international exchange program may be granted permission to retain their scholarships and/or awards for a maximum of one academic year away from McGill. Requests for such permission must be made in writing by July 1st. Further details may be obtained from the Scholarships Office. Students who have relinquished their awards may, upon their return to McGill, request reinstatement by writing to the University Scholarships Committee in care of the Scholarships Office. Students requesting reinstatement should explain their activities during the time away from McGill and provide transcripts of marks from any other educational institution attended during that time and a copy of their letter of readmission.

Upon graduation, Scholarship Certificates are given to all students who have held a J.W. McConnell Scholarship or Award or a James McGill Scholarship or Award or the equivalent during the undergraduate program for which they are receiving a degree. The designation "University Scholar" is awarded by each faculty to a maximum of the top 10% of its graduating students. This honorary designation is based upon the cumulative academic record in the graduating faculty and the minimum required CGPA is determined annually by each individual faculty.

Inquiries concerning undergraduate scholarships should be referred to the Scholarships Office in the Registrar's Office.

2.2 OPEN TO STUDENTS IN ALL FACULTIES

Scholarships and Prizes

CHESTER MACNAGHTEN PRIZES. – Two prizes, $300 and $200, offered annually in a competition for the best piece of creative writing in English submitted by an undergraduate student of the University, i.e. a story, a play, a poem, an essay, etc. Material should be carefully selected and properly presented. The judges will not read untidy manuscripts or a large number of newspaper clippings. Printed compositions are ineligible if they have been published before March 1, 1982. No candidate may submit more than two entries, which must be typed and must reach the Secretary, University Scholarships Committee, Registrar's Office, before March 1, 1983. Winning entries will be retained and filed in the McLennan Library. The competition is restricted to students who have not previously won the First Prize. Awarded by the University Scholarships Committee.

J.W. McCONNELL AWARDS IN SCIENCE AND ENGINEERING. – $500 each. Made possible through the generous donation of the late J.W. McConnell. Awarded to students with outstanding merit proceeding to degrees in any field of Science and Engineering. Renewable in competition on the basis of high academic standing. Awarded by the University Scholarships Committee. Candidates must be Canadian citizens or permanent residents.

JAMES McGILL AWARDS. – $500 each. Awarded to students with outstanding merit proceeding to degrees in any faculty. Renewable in competition on the basis of high academic standing. Awarded by the University Scholarships Committee.

McGILL ALUMNAE OCTAVIA GRACE RITCHIE ENGLAND SCHOLARSHIP. – $500, established in memory of the late Octavia Grace Ritchie England, first woman Valedictorian. Awarded by the University Scholarships Committee to a distinguished student in any faculty, preference given to a woman student.

McGILL ALUMNAE HILDA DIANA OAKELEY SCHOLARSHIP. – $500, established in memory of the late Hilda Diana Oakeley, first Warden of Royal Victoria College. Awarded by the University Scholarships Committee to a distinguished student in any faculty, preference to a woman student.

ROWLINSON TRAVELLING PRIZE. – $100, awarded to McGill students who are named Rhodes Scholars. Established in 1978 by a donation from Professor Elizabeth Rowlinson, a graduate of Oxford University and a member of the Mathematics Department of McGill University. Awarded by the University Scholarships Committee.

Bursaries and Loan Funds

See Section 3.

2.3 OPEN TO STUDENTS IN THE FACULTY OF ARTS

For scholarships and prizes open to undergraduates in all Faculties, see Section 2.2.

For financial assistance, see Section 3.

General Regulations in Arts.

1. No applications are required except in the case of the Moyse Travelling Scholarships. The awards are made by the Faculty of Arts Scholarships Committee on the basis of academic standing in the regular session.
2. Unless restricted by the deed of gift or faculty regulations the awards are open to all students studying for the B.A. degree.
3. Only those students who have completed at least 27 credits in the Regular Session of the academic year preceding the award will be eligible for scholarships.
4. Scholarships will be awarded only if an adequate standard is attained for scholarship recognition.
5. If in any university year there is not a sufficient number of candidates showing adequate merit, any one or more of the scholarships offered for competition may be given to more deserving candidates in another year.
6. In order to retain a scholarship a successful candidate must proceed regularly in a degree program in the Faculty of Arts and fulfill any other conditions prescribed for the scholarship.

Scholarships

CHARLES ALEXANDER SCHOLARSHIP. – $500, established in 1870 "for the encouragement of the study of Classics and other subjects."

MARGARET JANE ALLAN SCHOLARSHIP. – $100, bequeathed in 1929 to the Royal Victoria College by Mrs. Agnes W. Allan for the woman student with the highest standing in the initial year of the B.A. course.

DR. JAMES BARCLAY SCHOLARSHIP. – Awarded in the Classics Department, value $300.

SIR EDWARD BEATTY MEMORIAL SCHOLARSHIPS IN CLASSICS. – Three awards of $500 each established (in 1927) by the late Sir Edward Beatty, former Chancellor of the University. Awarded in recognition of high academic merit to students entering the intermediate or final year in Major or Honours Classics. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the Department of Classics. If in any year there is not a sufficient number of qualified candidates in Classics, the remaining awards will be open to students in any department in the Faculty of Arts.

DR. NORMAN BETHUNE MEMORIAL AWARD. – $100, initially established by a donation from the late Mr. W.A. Scott, founding member and Honorary President of Victoria's Canada-China Friendship Association in memory of Dr. Norman Bethune. Awarded to an outstanding student at the conclusion of the first or intermediate year in the Faculty of Arts, with preference given to a student who is registered in any program relating to Chinese studies. Awarded by the Faculty of Arts Scholarships Committee upon recommendation of the Centre for East Asian Studies.

ROBERT BRUCE SCHOLARSHIPS. – $100, tenable for two years, bequeathed by the late Robert Bruce, of Québec City. Awarded for high academic standing in the examinations at the end of the initial year. One scholarship is available in each of the Faculties of Arts, Management and Science. Awarded by the Faculty Scholarships Committees.

MARION McCALL DALY AWARD. – $850, awarded to a student who has completed two years at McGill and is continuing in a third year in the Faculty of Arts, Science, Management, or Engineering (including Architecture) at the University. Awarded by the University Scholarships Committee upon the recommendations of the faculties concerned. In making the award the following is taken into account: (a) preference is given to women students, (b) the candidate's promise of making a definite contribution to Canadian life, (c) financial need, and (d) academic record.

DOW-HICKSON SCHOLARSHIPS. – $1,500 each. Established in 1957 by a bequest from the late Dr. J. William A. Hickson and awarded to students entering the penultimate or the final year of the Honours courses in English Literature, Philosophy or Psychology. Awarded by a joint committee of the scholarships committees of the Faculties of Arts and of Science upon the recommendations of the departments concerned.

MAURICE GOLDENBERG MEMORIAL SCHOLARSHIP. – $550, for studies in Government, Constitutional Law, or Public Administration. Established by Senator H. Carl Goldenberg, Q.C. in memory of his father, the late Maurice Goldenberg. Awarded by the University Scholarships Committee to the best candidate amongst those nominated by the Faculty of Arts and the Faculty of Law.

GREEK MINISTRY OF CULTURE AND SCIENCES SCHOLARSHIPS. – Ten scholarships for one month's study at the International Summer School in Thessaloniki, preceded by a ten day stay in Athens. Each scholarship covers fees, room and board and the round trip Athens-Thessaloniki. Travel expenses to and from Greece are not covered. Open to students in any year. Awarded by the Faculty of Arts Scholarships Commmittee on recommendation of the Modern Greek Section of the Department of Classics.

MAURICE AND SARA GREENBLATT MEMORIAL SCHOLARSHIPS. – Two scholarships of $550, bequeathed by Mrs. Greenblatt, for students proceeding from the intermediate year(s) to the final year, preference given to students in Modern Languages (other than English) or in History. Awarded on recommendation by a committee selected from the Departments of History and of the Modern Languages.

ITALIAN GOVERNMENT SCHOLARSHIPS. – Awarded to students in the Department of Italian for summer study in Italy. Open only to Canadian citizens. Apply to the Department of Italian.

JAPANESE STUDIES AWARDS. – Three awards of $500 each will be awarded to students on completion of U1 or U2 with a concentration in Japanese studies. Selection and recommendations to be made by the Japanese Sub-Committee of the East Asian Studies Advisory Committee. Awarded by the Faculty of Arts Scholarships Committee.

MARY KEENAN SCHOLARSHIP IN ENGLISH. – $200, awarded by the Department of English to a student proceeding at McGill from the B.A. to the M.A. in English. The need and ability of the student are considered.

KNIGHTS OF PYTHIAS SCHOLARSHIP. – $300, to a student in the Social Sciences who must be a resident of the Island of Montreal, and entering the intermediate year of the B.A. course. May be renewed for a further year if the holder proves worthy.

HANNAH WILLARD LYMAN MEMORIAL SCHOLARSHIP. – $500, to a woman student of the intermediate or final year of the B.A. course.

SIR WILLIAM MACDONALD SCHOLARSHIPS. – Two scholarships of $800 each, open to all students in the intermediate and final years.

ALEXANDER MACKENZIE SCHOLARSHIPS. – Two scholarships of $250 each, awarded on the re-

sults of the Honours examinations in Political Science. One award will be held by a student entering the final year and one by a student entering the intermediate year. Students must take the Honours work in Political Science.

JAMES DARLING McCALL SCHOLARSHIPS. – Two scholarships of $800, founded by the late J.T. McCall, Esq., in memory of his son, James D. McCall, B.Sc., who was drowned shortly after the war of 1914-18, in which he served with distinction. Awarded to students entering the final year; one scholarship is available to a student taking Honours in English and the other to a student taking Honours in Philosophy. Awarded by the Faculty of Arts Scholarships Committee on recommendation of the departments concerned.

McGILL ALUMNAE GEORGINA HUNTER SCHOLARSHIP. – $500, established in memory of the late Georgina Hunter, a member of the first graduating class of women at McGill Univeristy, the first President of the Alumnae Society, and a former Principal of the High School for Girls, Montreal. Awarded to a distinguished woman student.

McGILL ALUMNAE ETHEL HURLBATT SCHOLARSHIP. – $500, established in memory of the late Miss Ethel Hurlbatt, a former Warden of the Royal Victoria College. Awarded to a distinguished woman student.

McGILL ALUMNAE CATHERINE I. MACKENZIE SCHOLARSHIP. – $500, established in memory of the late Miss Catherine I. Mackenzie, B.A. 1904, former Principal of the High School for Girls, Montreal. Awarded to a distinguished woman student.

McGILL ALUMNAE ISABELLA McLENNAN SCHOLARSHIP. – $500, established in memory of the late Miss Isabella McLennan. Awarded to a distinguished woman student.

McGILL ALUMNAE SUSAN CAMERON VAUGHAN SCHOLARSHIP. – $500, established in honour of the late Mrs. Walter Vaughan, a former Warden of the Royal Victoria College. Awarded to a distinguished woman student.

MOYSE TRAVELLING SCHOLARSHIPS. – Founded by the late Right Honourable Lord Atholstan, to commemorate the "splendid services of Dr. Charles E. Moyse, for forty-two years Professor of English, during sixteen of which he was Dean of the Faculty of Arts and Vice-Principal of the University." Two scholarships, normally of $3,500 each tenable for one year. One scholarship to be awarded by the Faculty of Arts for distinction in literary subjects and the other by the Faculty of Science for distinction in scientific subjects. If there is no winner in one of these faculties, both scholarships may be awarded to applicants in the other faculty.

In the absence of applicants of sufficient merit in either of the faculties, applications from final year students in other undergraduate faculties, or from graduate students, may be considered.

Holders must devote the year of tenure to advanced study, preferably in a British or European university, but not to the exclusion of other institutions approved by the Faculty of Arts or of Science.

Applications, whether from graduates or from students in the final year of the undergraduate course, should reach the Dean of the Faculty of Arts or of Science not later than April 1. Applications should be accompanied by:

(1) the names of two referees who are familiar with the applicant's work;

(2) a detailed and comprehensive statement of the applicant's proposed course of study; the institution or centre at which he, or she, proposes to study;

(3) a statement of the applicant's age and nationality.

Awards will be made after the results of final examinations in the final year of the undergraduate course have been determined.

JESSIE NORRIS MEMORIAL AWARD. – $625, awarded on the basis of academic merit to a student in the Department of English who is entering the final year. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the Department of English.

NORTH AMERICAN STUDIES PROGRAM AWARD. – $1,000 (U.S.), awarded to assist an outstanding student in North American Studies to pursue studies in this field in the United States. Established to promote American Studies abroad. In view of this aim, U.S. citizens will not be considered for the award. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the Chairman of the North American Studies Program.

ALLEN OLIVER FELLOWSHIP IN ECONOMICS. – Present value about $1,000. Established by Mrs. Frank Oliver, of Edmonton, Alta., in "proud and loving memory of her son, the late Allen Oliver, M.C., B.A., Lieutenant, 26th Battery, C.F.A., who was killed in action at the Somme on November 18, 1916." Lieutenant Oliver was an honour graduate in 1915 in the Department of Economics and Political Science. Awarded to the student who stands highest in first class honours in the Departments of Economics and Political Science at the final B.A. examination, and the holder is required to pursue studies in Economics and Political Science at McGill or elsewhere. No application is required.

PETERSON MEMORIAL SCHOLARSHIPS IN CLASSICS. – Two scholarships of $1,000 each, founded in memory of Sir William Peterson, Principal of McGill 1895-1918, by his son, W.G. Peterson, M.A. Open to students in any year.

PRINCE OF WALES SCHOLARSHIP. – $150, open to students proceeding from the intermediate year(s) into the final year. Awarded for general dis-

tinction by the Faculty of Arts on the student's complete academic record and on recommendations from departments in which they have taken their courses.

JANE REDPATH EXHIBITION. – Two awards of $175 each, founded by the late Mrs. Redpath to maintain an exhibition in Arts and Science. Awarded on the results of the initial year to the B.A. or B.S.W. student and to the B.Sc. student with the highest average on the year's work. One award to be made by each of the appropriate Faculty Scholarships Committees.

ELSIE STEPHEN REFORD SCHOLARSHIPS. – Two scholarships of $450, established by Mrs. R.W. Reford in 1920. One scholarship is available in each of the departments of English and Philosophy. Awarded by the Faculty of Arts Scholarships Committee on recommendation of the departments concerned.

JACK SCHOEL SCHOLARSHIPS. – Two scholarships of $1000, each awarded annually for academic excellence to either incoming or continuing students in the Jewish Teacher Training Program. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the Director of the Program.

BARBARA SCOTT SCHOLARSHIP. – $600, bequeathed by Barbara Scott for the student "excelling in Classics in the initial year."

SHAKESPEARE SCHOLARSHIP. – $100, for a student advancing to the final year with special distinction in English Honours courses. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the Department of English.

CHARLES WILLIAM SNYDER MEMORIAL SCHOLARSHIPS. – Four scholarships of $1000 each, founded by the late L.P. Snyder, Esq., in memory of his son, Charles William Snyder, a student of First Year Arts who was killed in the Battle of Sanctuary Wood on June 2nd, 1916. Awarded on the results of the sessional examinations to students entering the final year of the Bachelor of Arts program. Two scholarships are awarded on the recommendation of the Department of English to students taking either Honours or Majors in English; one scholarship is awarded on the recommendation of the Department of Economics to a student taking either Honours or Majors in Economics; another scholarship is awarded on the recommmendation of the department concerned to a student taking a joint program in English and another subject. Awarded by the Faculty of Arts Scholarships Committee.

ROY M. WOLVIN MEMORIAL SCHOLARSHIPS. – Five scholarships of $500 each given by the late Mrs. Roy M. Wolvin in memory of her husband. Awarded for high academic standing. Two scholarships are available in the Faculty of Engineering and one scholarship is available in each of the Faculties of Arts, Management and Science. Awarded by the Faculty Scholarships Committees.

WOMEN ASSOCIATES OF McGILL SCHOLARSHIP – $750, for high academic standing to an undergradudate student having completed at least one year in the B.A. program. Preference is given to women students. Awarded by the Faculties of Arts Scholarships Committee.

Prizes

ACADEMY OF ATHENS PRIZE. – One or more prizes of $100 each. Awarded to students of high academic standing who are in the final year of the Major in Classics (Classical and Hellenic Studies). Awarded by the Faculty of Arts Scholarships Committee on recommendation of the Modern Greek Section of the Department of Classics.

AUSTRIAN GOVERNMENT PRIZE. – A book prize for a student who has excelled in German.

HARRY BARKER MEMORIAL PRIZE IN ENGLISH. – $325, bequeathed by the late Miss Dinah Lee in memory of the late Mr. Harry Barker, awarded to the student with the highest standing in English in the initial year. Awarded on the recommendation of the Department of English by the Faculty of Arts Scholarships Committee.

NORMAN BERMAN MEMORIAL PRIZE. – Established in 1973 by Mr. and Mrs. Joseph Berman. An annual $400 prize or prizes will be awarded to students for: 1) Excellence in the field of Judaic studies. 2) A critical study in the field of Hebrew or Yiddish language and literature or a translation of an important work of Hebrew or Yiddish literature into English or French. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the Chairman of the Jewish Studies Program.

LOUIS AND BESSIE BATIST PRIZE. – To be awarded to an undergraduate student showing excellence in the area of Jewish Studies. The amount of this prize will be equal to the yearly income produced by the perpetuating fund established by the Batist family. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the Chairman of the Jewish Studies program.

C.A. BRODIE BROCKWELL PRIZE. – $100, established in 1981 by Dr. and Mrs. Hirsh Rosenfeld to be awarded to an outstanding Major or Honours student entering the final year in Jewish Studies. Awarded by the Faculty of Arts Scholarship Committee on the recommendation of the Chairman of the Jewish Studies Program.

HENRY CHAPMAN PRIZE. – $150, for studies in Modern Languages (excluding English), or in Hebrew.

CHERRY PRIZES. – Two prizes of $225 each, founded by Wilbur H. Cherry, Arts 1907, and Anna Cherry, Arts 1918, in memory of their father, William

Cherry, Med. 1869 and of their brother, William McFie Cherry, Arts 1911, awarded on the recommendation of the Departments of Economics and Political Science to deserving students.

DALSE-SHEINHART PRIZE. – $125, to be awarded to an undergraduate student for excellence in a Jewish language. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the Chairman of the Jewish Studies Program.

ISIDORE FINKELSTEIN PRIZE. – $100, established in 1973 by Mrs. I. Finkelstein in memory of her late husband, Isidore Finkelstein. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the Department of History to the full honours history student graduating with the highest mark.

DORA FORSYTH PRIZE. – $250, bequeathed by the late Miss Jeanie Forsyth for English Literature. Open to women students only and awarded on the recommendation of the Department of English by the Faculty of Arts Scholarships Committee.

FRENCH GOVERNMENT'S BOOK PRIZES. – Three book prizes to be awarded to three students of the Department of French Language and Literature in their graduating year for excellence in the study of French Language and Literature.

GERMAN EMBASSY PRIZE. – A book prize for excellence in German.

GREEK AMBASSADOR'S BOOK PRIZES. – First prize awarded to a student of high standing graduating with a Major in Classics (Classical and Hellenic Studies). Second prize awarded to a graduating student who has completed at least twelve credits in Modern Greek and who has shown distinct promise in the subject. Awarded by the Faculty of Arts Scholarships Committee on recommendation of the Modern Greek Section of the Department of Classics.

HISTORICAL SOCIETY'S PRIZE. – $100, awarded jointly by the Executive of the Historical Society and the Chairman of the Department of History to the undergraduate in the initial year showing the greatest promise in History and intending to read for Honours in this subject.

MADELENE HODGSON PRIZE IN HISTORY. – $75, endowed by the I.O.D.E. in recognition of the work done by the late Mrs. W.C. Hodgson as President of the Provincial Chapter of Québec. Awarded to the intermediate year Honours student in History by the Department of History for the most outstanding work in this subject.

JAPANESE CANADIAN CULTURAL CENTRE OF MONTREAL PRIZE. – $100, offered by the Japanese Canadian Cultural Centre of Montreal to students who are registered in an East Asian Studies program, and who are in their final year. Awarded on the basis of high academic standing and performance in the program by the Faculty of Arts Scholarships Committee on the recommendation of the East Asian Advisory Committee.

JAPAN STUDIES PRIZES. – Annual prizes of $50 and $25, awarded to undergraduate students for excellence in research papers on Japan submitted to any related department during the year. Papers must be written either in English or French. Awards will be made by the Faculty of Arts Scholarships Committee on recommendation of judges appointed by the East Asian Studies Advisory Committee.

KAY MACIVER MEMORIAL PRIZE. – $100, established in 1980 by Emeritus Professor of Music Helmut Blume in memory of Catherine Claire ("Kay") MacIver, outstanding Canadian broadcaster. For the best English essay by an undergraduate on a subject in the field of English Canadian or French Canadian Literature. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the Department of English.

PAUL F. McCULLAGH PRIZE IN ANCIENT GREEK. – One or more prizes with a minimum value of $100 each, for proficiency in Ancient Greek to students in any year of the Faculty of Arts or Science. If there are no suitable candidates at the undergraduate level, a student in any year of post-graduate study will be eligible for one of these prizes.

PAUL F. McCULLAGH PRIZE IN LATIN. – One or more prizes with a minimum value of $50 each, for proficiency in Latin to a student or students in any year of the Faculty of Arts or Science. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the Chairman of the Department of Classics. If there are no suitable candidates at the undergraduate level, a student in any year of post-graduate study will be eligible for one of these prizes.

McGILL ALUMNAE SOCIETY PRIZE. – $100, presented upon graduation to a distinguished student for excellence and high academic standing. Preference given to women students.

BORIS MUSKATOV PRIZE IN PSYCHOLOGY. – $200, endowed by Miss Serafina Muskatov in memory of her brother, Boris Muskatov, who died on January 9, 1948, while a student. Offered to a student who has completed the penultimate year in the Faculty of Arts or of Science and has done the best work in Psychology. Awarded on the recommendation of the Department of Psychology by whichever faculty scholarships committee is appropriate.

NEWCOMEN AWARD. – The Newcomen Society in North America offers $200 for a student at McGill who writes an outstanding paper on some facet of Industrial History. Entries must be submitted to the Chairman of the Department of Economics on or before April 1.

PETERSON MEMORIAL PRIZE IN ENGLISH LITERATURE. – $500, founded by W.G. Peterson,

M.A. in memory of his father, Sir William Peterson, Principal of McGill, 1895-1918. Awarded to an undergraduate, or graduate student with distinction in English Literature who has also shown creative literary ability.

NORMAN A. PRENTICE MEMORIAL PRIZE. – $300, established by Mrs. Norman A. Prentice in memory of her late husband, Norman A. Prentice, Arts '10. Awarded to a student of high standing proceeding from the intermediate to final year in the General or Major B.A. program. Preference is given to students who have included French and/or History among their subjects.

DR. GRAHAM ROSS PRIZE. – $150, to be awarded to a student of high standing in Modern Greek who intends to proceed from intermediate language courses to an intermediate literature course. Awarded by the Faculty of Arts Scholarships Committee on recommendation of the Modern Greek Section of the Department of Classics.

JAMES D. ROSS PRIZE. – $100, established by the former colleagues and friends of the late Professor James D. Ross. To be awarded by the Department of Philosophy to the outstanding student in the penultimate year of the Honours Philosophy Program.

LIONEL SHAPIRO AWARD IN ENGLISH. – $1250, awarded by the Faculty of Arts Scholarships Committee, on the recommendation of the Department of English, to one or more students in the B.A. course who are completing their final year and have demonstrated outstanding literary talent.

PRIZE OF THE AMBASSADOR OF SWITZERLAND IN CANADA FOR FRENCH. – A book prize for excellence in the final year in French Language and Literature.

PRIZE OF THE AMBASSADOR OF SWITZERLAND IN CANADA FOR GERMAN. – A book prize for excellence in German in the final year, awarded by the Faculty of Arts on the recommendation of the Department of German to an undergraduate whose mother tongue is not German.

PRIZE OF THE AMBASSADOR OF SWITZERLAND IN CANADA FOR ITALIAN. – A book prize for excellence in the final year in Italian.

CORINNE FAY TABAC MEMORIAL PRIZE IN ENGLISH LITERATURE. – $50, donated by Mr. Steven T. Tabac in memory of his wife Corinne Fay Tabac, a former student at Macdonald College. Awarded to the winner of the Shakespeare Gold Medal.

GEORGE THEOTOCAS PRIZE. – $250 (in drachmas) for five weeks' summer study in Greece. Awarded to a student of high academic standing in an intermediate course in Modern Greek. Awarded by the Faculty of Arts Scholarships Committee on recommendation of the Modern Greek Section of the Department of Classics.

HOWARD WEINROTH MEMORIAL ESSAY PRIZE. – $100, established by the students, colleagues and friends of the late Howard Weinroth. Awarded by the Faculty of Arts Scholarships Committee, on the recommendation of the Department of History, to the undergraduate student in majors or in honours history submitting the outstanding essay in British history to a panel of historians selected by the Department Chairman.

WOMEN'S PERSONNEL GROUP OF MONTREAL PRIZE. – $50, made available in alternate years to McGill and to the University of Montreal. At McGill the selection is made by the Director of the Industrial Relations Centre in consultation with the appropriate departments in the Social Sciences and awarded to the woman student in any year of the Faculty of Arts or the Faculty of Management who shows the most promise and intends to continue, either at the University or in industry, in the general field of personnel and/or human relations. The award will be available at McGill in 1968 and thereafter biennially.

WOODHEAD MEMORIAL PRIZE IN GREEK AND LATIN. – $275, presented by the Wiegand Memorial Foundation Inc., in honour of the late William Dudley Woodhead, Hiram Mills Professor of Classics and Chairman of the Department from 1925-1950. Awarded to the student in Honours Greek and Latin of the intermediate or final years, who, in the opinion of the Department, has done the best work in this field.

PRIZE OF THE AMBASSADOR OF YUGOSLAVIA IN CANADA. - A book prize for the best student in the language, literature or civilization of one of the peoples of Yugoslavia (principally Serbo-Croatian). Open to undergraduate or graduate students and awarded on the recommendation of the Department of Russian and Slavic Studies.

Medals

The following medals are awarded to the graduating students who stand highest in the First Class Honours List of the subjects named, provided the Faculty so recommends to Senate:

HENRY CHAPMAN MEDAL, for Classical Languages and Literature.

GOVERNOR-GENERAL'S GOLD MEDAL, for Modern Language and Literature.

GOVERNOR-GENERAL'S SILVER MEDAL, awarded to the student standing highest among those graduating "with great distinction" in a major or faculty program of the Faculty of Arts.

JEAN E.L. LAUNAY MEDAL. – Established in 1981 in honour of Jean Launay, Emeritus Professor, former Chairman of the Department of Romance Languages (later Department of French Language and Literature) and former Director of the French Summer School, to commemorate his many

years of outstanding service to McGill. Awarded to a graduating student in the Stylistics and Translation sequence of the Department of French Language and Literature, for excellence in the programme. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the Department.

ALLEN OLIVER GOLD MEDAL, for Economics and Political Science, founded by Mrs. Frank Oliver, in memory of her son, the late Allen Oliver, M.C., B.A., Lieutenant, 26th Battery, C.F.A., who was killed in action at the Somme, on November 18, 1916.

PRINCE OF WALES MEDAL, for Mental and Moral Philosophy.

SHAKESPEARE MEDAL, for English Language and Literature.

2.4 OPEN TO STUDENTS IN THE FACULTY OF DENTISTRY

For scholarships and prizes open to undergraduates in all Faculties, see Section 2.2.

For financial assistance, see Section 3.

For details of scholarships, bursaries, and prizes in Dentistry see Faculty of Dentistry Announcement.

2.5 OPEN TO STUDENTS IN THE FACULTY OF EDUCATION

For scholarships and prizes open to undergraduates in all Faculties, see Section 2.2.

Scholarships and Prizes

RONALD BRIGDEN MEMORIAL SCHOLARSHIP. – Awarded to graduates from schools on the South Shore whose staff members are represented by the St. Lawrence Richelieu Teachers' Association. Candidates must be in the Faculty of Education. Value $200. Apply to President, Ronald Brigden Memorial Scholarships S.R.T.A., Box 175, St. Lambert, PQ.

ELLA BRYSON SCHOLARSHIP. – Offered to a student entering the Faculty of Education from Fort Counlonge Protestant School. Apply to Secretary, Women's Institute, Fort Coulonge, PQ., before May 1st.

ESTELLA HOLMES SCHOLARSHIP. – $100, offered by the Women's Institute of Stanstead County to a student from Stanstead County who is entering the Faculty of Education. Apply, not later than July 1, to the Convenor of Education of the Stanstead County Women's Institute whose name may be obtained from the Principal of the applicant's school.

DIANE KRUK MEMORIAL PRIZE. – $100, established by the Education Undergraduate Society in memory of Diane Kruk, a former Education student. Awarded by the Faculty of Education Committee on Student Standing to a graduating student who has shown outstanding leadership in faculty and student activities, while maintaining a good academic standing.

A.S. LAMB SCHOLARSHIPS. – Five scholarships of $400 each, endowed by friends of Dr. Arthur S. Lamb, formerly Director of the School of Physical Education and of the University Department of Athletics, Physical Education and Recreation, as a tribute to his work in these fields. Awarded to students entering the intermediate or final year of the Bachelor of Education (Major in Physical Education) course. Awarded by the Faculty of Education on the basis of academic merit and professional promise. No application necessary.

MACDONALD TEACHERS' ALUMNI ASSOCIATION SCHOLARSHIP. – $100, awarded to the best all round student by the Dean of the Faculty of Education and the President of the Alumni Association. The scholarship must be used to further the winner's educational studies. When circumstances permit, two scholarships are offered in the same year.

McGILL ALUMNAE SOCIETY PRIZE. – $100, presented upon graduation to a distinguished student for excellence and high academic standing. Preference given to women students.

Medals

GOLD MEDAL. – Awarded to the student demonstrating the highest general proficiency throughout the B.Ed., Major in Physical Education program.

GOVERNOR-GENERAL'S MEDAL. – Presented by His Excellency the Governor-General of Canada. Awarded for general proficiencey to a full-time teacher in training in the graduating year of the Bachelor of Education program.

STRATHCONA TRUST MEDALS. – Awarded to the man and the woman standing highest in the initial year and to the man and the woman standing highest in the intermediate year of the Major Physical Education program.

Bursaries and Loan Funds

For other financial assistance, see Section 3.

ELIZABETH MILLAR COSENS BURSARY. – To be awarded to a woman in the intermediate or final year of the degree course in Physical Education. Awarded on the recommendation of the Faculty of Education without restriction as to race, creed, colour or nationality on the basis of academic record, motivation and financial need with primary concern being given to academic proficiency.

I.O.D.E. BURSARIES. – The Municipal Chapter I.O.D.E. offers two bursaries of $350 and $200, ten-

able in the Faculty of Education. Awarded by a committee of the Chapter on scholarship and need. Apply to the Educational Secretary, the Municipal Chapter of Montreal I.O.D.E., 5475 Côte St. Antoine, Montreal, PQ H4A 1R1.

KAY KERRY CHAPTER I.O.D.E. BURSARY. – $300, offered to a student resident in Pointe Claire or Beaconsfield, with preference given to students in the Faculty of Education. Apply to Chairman, Bursary Committee, Kay Kerry Chapter, I.O.D.E., 233 Allancroft Crescent, Beaconsfield, PQ. H9W 1L8, no later than March 1.

KIWANIS CLUB OF LAKE OF TWO MOUNTAINS BURSARY. – $150, tenable by a student in the Faculty of Education residing in the counties of Vaudreuil-Soulanges including Ste. Anne de Bellevue and Senneville. Apply to the Secretary, Kiwanis Club of Lake of Two Mountains, P.O. Box 96, Dorion, PQ, before September 30.

JUDGE LINDSAY H. PLACE, Q.C. BURSARY. – Approximately $300, established in 1977 for a period of at least five years, in memory of Judge Lindsay H. Place, Q.C. by the Municipal Chapter of the Montreal I.O.D.E. Awarded to a student entering either the second or third year of the B.Ed. program or a 1G student. Preference will be given to students who plan to teach in one of the sciences or a language other than their mother tongue. Awarded by the I.O.D.E. on the recommendation of the Faculty of Education on the basis of financial need.

PROVINCIAL ASSOCIATION OF PROTESTANT TEACHERS BURSARIES. – Offered on the basis of scholarship and need. Apply to the Executive Director, Provincial Association of Protestant Teachers, 245 Hymus Blvd., Pointe Claire, P.Q. H9R 1G6.

PROVINCIAL ASSOCIATION OF PROTESTANT TEACHERS LOAN FUND. – Loans of not more than $300 per annum with priority to students applying for the first time and to those not eligible for other bursaries. Loans repayable when the student begins teaching. Apply to the P.A.P.T. Professional Loans Committee, 245 Hymus Blvd., Pointe Claire, P.Q. H9R 1G6.

VERDUN WOMEN'S CLUB HARRIET MORRIS MEMORIAL BURSARY. – $100, tenable for one year. Awarded in memory of the co-founder of the Club, Harriet Morris, on the basis of academic record, character, and financial need, to a woman student entering the Faculty of Education who is a graduate of Verdun Protestant High School.

2.6 OPEN TO STUDENTS IN THE FACULTY OF ENGINEERING (Including Architecture)

For scholarships and prizes open to undergraduates in all Faculties, see Section 2.2.

General Regulations in Engineering

1. Only those students who have completed at least 27 credits (exluding Summer Session) in the academic year preceding the award will be eligible for scholarships.
2. Scholarships will be awarded only if an adequate scholarship standard is attained.

Scholarships

BAYLIS SCHOLARSHIP. – $600, founded in memory of Mr. and Mrs. James Baylis of Montreal. Awarded to a student entering the Second year who is in need of financial assistance and will be renewed if the student maintains satisfactory standing.

ABE AND JENNIE BROCK AWARD. – $150, to a second year student in Mechanical Engineering with a good academic record who needs financial assistance. Awarded by the Faculty of Engineering Scholarships Committee on the recommendation of the Mechanical Engineering Department.

CANADAIR SCHOLARSHIP. – $1000, to a student with high academic standing in Mechanical Engineering who is specializing in aeronautical engineering. Awarded by the Faculty of Engineering on the recommendation of the Department of Mechanical Engineering.

E.G.M. CAPE AND COMPANY (1956) LTD. AWARD. – $250, for a student who has completed the First year of the Civil Engineering course and is entering the Second year. Awarded by the Scholarships Committee of the Faculty of Engineering on the basis of high scholastic standing, activity in extracurricular work and student engineering society affairs, and construction engineering promise. All other factors being equal financial need will be considered.

CHEVRON STANDARD LIMITED SCHOLARSHIPS. – Two awards of $1,000 each for students entering the final year in the Faculty of Engineering, with preference to those displaying an interest in petroleum-related engineering. Awarded by the Faculty of Engineering Scholarships Committee on the basis of academic excellence and general contributions to society.

CHRISTIE-STEINMETZ AWARD. – $400 and a copy of the book "The Steinmetz Era" to a second year student in Electrical Engineering on the basis of academic performance and demonstration of exceptional promise as an engineer. Awarded by the Faculty of Engineering Scholarships Committee on the recommendation of the Department of Electrical Engineering.

CYANAMID OF CANADA LIMITED SCHOLARSHIP. – $600, established by Cyanamid of Canada Limited for a student whose scholastic standing and attendant attributes make him worthy of finan-

cial assistance. Candidates must be Canadian citizens or permanent residents. Awarded by the Scholarships Committee of the Faculty of Engineering, with preference being given to students in Chemical Engineering.

MARION McCALL DALY AWARD. – *See Section 2.3.*

SIR WILLIAM DAWSON SCHOLARSHIPS IN METALLURGY. – A research and teaching graduate award of $4,500, or one or more undergraduate awards totalling $4,500, in the Department of Mining and Metallurgical Engineering, endowed in memory of the late Sir William Dawson, Principal of McGill University from 1855 to 1893.

DOW CHEMICAL OF CANADA SCHOLARSHIP. – $900, for a student in the final year of Chemical Engineering, awarded by the Scholarships Committee of the Faculty of Engineering on the recommendation of the Department of Chemical Engineering, subject to the following conditions: the student (1) should have a sincere interest in the Chemical Industry; (2) must be in the upper half of the class; (3) should demonstrate some leadership in extracurricular activities; (4) should not hold another scholarship; (5) should be eligible to work in Canada.

A.F. DUNLOP SCHOLARSHIPS. – Three travelling scholarships of $2,800 each, bequeathed by the late Mrs. Catherine A. Dunlop for students graduating from the McGill School of Architecture. Apply, stating proposed study, localities to be visited and date of departure, to the Director of the School before March 31. Selection is made by a Committee of Staff of the School of Architecture.

NEVIL NORTON EVANS SCHOLARSHIP. – $450, established in 1937 by graduates of the Faculty of Applied Science (Engineering) to commemorate the work of Professor Nevil Norton Evans, formerly Professor of Chemistry. Open to students in Engineering who show outstanding ability in Chemistry. Awarded by the Faculty of Engineering Scholarships Committee.

GENERAL MOTORS SCHOLARSHIPS. – General Motors of Canada Limited offers one or more $1,000 scholarships for students entering the final year of an Engineering, Business or Computer Science related program. For further information consult the Engineering Faculty Office.

R.P.D. GRAHAM SCHOLARSHIPS AND MEDALS. – Endowed by former students of Dr. R.P.D. Graham, Professor Emeritus of Mineralogy. One scholarship of $1,500 is available to students entering an intermediate or the final year of the B.Sc. program in Geological Sciences. A second scholarship of $1,500 is available to students entering the second or third year of the B.Eng. program in Mining Engineering. Both scholarships are awarded by the faculty scholarships committees on the recommendation of the chairman of the department concerned. A bronze medal bearing the likeness of Professor Graham is given to each scholarship winner.

JOHN GREEN MEMORIAL AWARD IN ELECTRICAL ENGINEERING. – Established by his relatives and friends in memory of John Green, an Honours student in the Electrical Engineering program who died as a result of an accident. For the student with highest standing in the penultimate year of Honours Electrical Engineering. Awarded by the Faculty of Engineering Scholarships Committee on the recommendation of the department.

THOMAS LEEMING HARRISON AWARD. – $450, for a student who has completed the Second year of the Civil Engineering course with high scholastic standing and who is entering the final year. Awarded by the Scholarships Committee of the Faculty of Engineering on the recommendation of the Department of Civil Engineering and Applied Mechanics.

WILLIAM HENRY HOWARD SCHOLARSHIPS. – Six scholarships of $900 each, bequeathed in 1955 by the late Mrs. Florence P. Howard in memory of her husband. Open to undergraduate and graduate students, two each in Metallurgical Engineering, Chemical Engineering and Geology. Awarded by the faculty scholarships committees on the recommendations of the departments concerned for scholastic ability and general promise.

IRON ORE COMPANY OF CANADA SCHOLARSHIPS. – Two scholarships of $500 each, open to students entering the Second or Third year in Mining, Metallurgical, Electrical, Mechanical, Civil, or Chemical Engineering. Awarded by the Scholarships Committee of the Faculty of Engineering on the basis of academic ability, personality, need, and general promise.

JOHNSON WAX SCHOLARSHIP. – Total value of $2,400 ($800 a year for three years), awarded each year to a student who is entering the First year course in Chemical Engineering. Awarded by the Faculty of Engineering and renewable until the holder graduates provided academic standing is sufficiently high. Awarded mainly on the basis of academic standing but general qualifications for the engineering profession and need for financial help are also considered.

PETER KIEWIT SONS CO. LTD. AWARD IN CONSTRUCTION ENGINEERING. – $1750, awarded on the basis of exceptional promise in construction engineering to a student entering the final year in Civil Engineering. Candidates must be Canadian citizens and must submit a written application before September 30th according to guidelines available from the Chairman of the Department of Civil Engineering and Applied Mecanics. Awarded by the Faculty of Engineering Scholarships Committee on the recommendation of the Chairman of the Department.

HARRY KRASHINSKY SCHOLARSHIP. – $1500, established by the l'Ordre des ingénieurs du Québec for Québec students finishing their penultimate year in Engineering. Applicants must submit a curriculum vitae, which should emphasize past and present activities in university and community affairs, and an essay not exceeding 500 words on the theme "The Role of the Engineer in the Community". Applications must be submitted by February 1. For further information apply to the Engineering Faculty Office.

FREDERIC J. LEMAISTRE AWARD. – $450, to a worthy student in the penultimate year of the undergraduate program in Chemical Engineering. Awarded by the Faculty Scholarships Committee on the recommendation of the Department of Chemical Engineering.

H.M. MACKAY MEMORIAL SCHOLARSHIP. – $600, established in 1932 as a memorial to the late Henry M. Mackay, formerly Dean of the Faculty of Engineering. Awarded by the Faculty Scholarships Committee to a Canadian citizen or permanent resident in the First year in Engineering on the results of the first semester examinations.

MR. AND MRS. T.R. McLAGAN SCHOLARSHIPS. – Two awards of $1,500 for outstanding students entering the final year of Electrical Engineering and Mechanical Engineering (one in each department) who are judged to be the best in terms of academic performance, leadership and citizenship. In cases where two or more students are judged equal on this basis, the financial needs of the candidates shall be considered and preference given to the student whose need is greatest.

HUGH MCLENNAN MEMORIAL SCHOLARSHIP. – $4500, established by the Hon. John Stewart McLennan, Dr. Francis McLennan and Miss Isabella McLennan in memory of Hugh McLennan, son of the Hon. John Stewart McLennan, killed at the Battle of Ypres in 1915. Awarded for travel to the student who has maintained the highest standing throughout undergraduate studies in Architecture. Selection is made by a Committee of Staff of the School of Architecture.

MONENCO SCHOLARSHIP. – $750, established to celebrate the 75th Anniversary of Montreal Engineering Company Limited in 1982. Awarded to a student entering the final year of any Engineering programme on the basis of academic performance and overall contribution to the life of the University. Awarded by the Faculty of Engineering Scholarships Committee.

R.G.K. MORRISON AWARD. – $1200, established in honour of Prof. R.G.K. Morrison, Chairman of the Department of Mining Engineering and Applied Geophysics 1949-1966. Kerr Addison Mines Limited is responsible for supporting this award. Awarded by the Scholarships Committee of the Faculty of Engineering upon the recommendation of the Department of Mining and Metallurgical Engineering to a student in the Mining Engineering course. If there is no suitable candidate for a particular year at the undergraduate level, the award may become available to a graduate student in Mining Engineering.

L'ORDRE DES INGÉNIEURS DU QUÉBEC SCHOLARSHIP. – $800, to a final year student in the Faculty of Engineering who was educated in the Province of Québec. Selected by the Faculty of Engineering Scholarships Committee on the basis of overall academic record.

QIT - FER ET TITANE INC. BOURSE. – Three scholarships of $800 each open to students who have completed their first year of the Engineering program. Two of the scholarships are to be awarded to Metallurgical Engineering students and one to a Mechanical Engineering student by the Faculty of Engineering Scholarships Committee on the recommendation of the respective departments.

DAVID E. AND RONNIE SCHOUELA MEMORIAL SCHOLARSHIP. – $1000, established in 1980 by the family in memory of David (B.Eng. '75, Mechanical Engineering, Honours Program) and Ronnie Schouela. For an Honours Mechanical Engineering student on the basis of academic performance and financial need. Awarded by the Faculty of Engineering Scholarships Committee on the recommendation of the Department of Mechanical Engineering.

PETER SEBESTYEN AWARD. – $200, to an Engineering student in good academic standing who makes a contribution to the educational process beyond the classroom. Awarded by the Faculty of Engineering Scholarships Committee.

I.P. SHARP SCHOLARSHIP. – $1,000 to a student, having completed at least three semesters, for outstanding performance in courses in mathematics and computer science. Awarded on the recommendation of the Director of the School of Computer Science by the Scholarships Committee of the Faculty in which the nominated student is registered.

WILFRED TRUMAN SHAVER SCHOLARSHIPS. – A maximum of six scholarships of $2,500 each, established by a bequest of the late Mrs. Elizabeth Henley Shaver in memory of her husband, to enable architecture students to study in Canada or in other countries.

Selection will be based on academic merit from among those completing the requirements for the B.Sc.(Arch.) cegree. Recipients must pursue these studies during the summer vacation immediately following the completion of this degree, in accordance with a program established by the Director of the School of Architecture. Awarded by the Faculty of Engineering Scholarships Committee on the recommendation of the School of Architecture.

ZEEV VERED AWARD. – $250, established in 1980 by Mr. Zeev Vered, graduate of McGill Univer-

sity in 1954. For a student in Civil Engineering with a good academic record who needs financial assistance. Awarded by the Faculty of Engineering Scholarships Committee on the recommendation of the Department of Civil Engineering.

RICHARD LAURENCE WELDON SCHOLARSHIPS. – Established by bequests from Mr. Richard Laurence Weldon and Mrs. Sylvia Thorsen Weldon. Three awards of $1000 each for students with high academic standing in Mechanical Engineering. Awarded by the Faculty of Engineering Scholarships Committee on the recommerdation of the Department of Mechanical Engineerng.

F.T.M. WHITE AWARD. – $1200, established in memory of the late Prof. F.T.M. White, Chairman of the Department of Mining Engineering and Applied Geophysics 1966-1971. The Canadian Mineral Industry Education Foundation is responsible for supporting this award. Awarded by the Scholarships Committee of the Faculty of Engineering upon the recommendation of the Department of Mining and Metallurgical Engineering to the outstanding student entering the final year of the Mining Engineering course.

STUART ALBERT WISDOM MEMORIAL SCHOLARSHIP. – $750, established in 1953 by Mrs. Stuart Albert Wisdom as a memorial to her late husband (B.Sc. (Mining and Metalurgy), McGill '09), and to commemorate his outstanding contributions to the field of metallurgy and, in particular, his invention of the process for the manufacture of acetylene black. Awarded by the Faculty Scholarships Committee on the recommendation of the Department of Mining and Metallurgical Engineering to a student entering the Third year of Metallurgical Engineering who has shown high scholastic ability and engineering promise.

ROY M. WOLVIN MEMORIAL SCHOLARSHIPS. – Five scholarships of $500 each, given by the late Mrs. Roy M. Wolvin in memory of her husband. Awarded for high academic standing. Two scholarships are available in the Faculty of Engineering and one scholarship is available in each of the Faculties of Arts, Management and Science. Awarded by the Faculty Scholarships Committees.

CLIFFORD WONG SCHOLARSHIPS. – Founded in 1981 by Mr. Clifford Wong, B.Arch. 1960. Two scholarships of $1,000 each for undergraduate students with high academic standing in the School of Architecture. Awarded by the Faculty of Engineering Scholarships Committee on the recommendation of the Director of the School of Architecture.

ROY H. YARALLI MEMORIAL AWARD. – $150, established in 1976 by his friends in the Classes of '70, '71, '72 in memory of Roy H. Yaralli, B.Eng. '72 (Civil). Awarded annually by the Scholarships Committee of the Faculty of Engineering on the recommendation of the Department of Civil Engineering and Applied Mechanics to a full-time undergraduate student in satisfactory standing in the department who makes a significant contribution to the educational process beyond the classroom.

Prizes

ALUMNI PRIZES. – Two prizes of $200 each. One prize awarded to a student after the completion of two semesters and the other after the completion of four semesters of studies in any field of engineering. The winners shall have a very high aggregate standing in engineering and show exceptional qualities of leadership and engineering promise.

CANADIAN CONSTRUCTION ASSOCIATION PRIZES. – Each year the Chairman of Civil Engineering selects the best technical paper dealing with some phase of construction work in which the author has had field experience for submission to the national Robert Leggett Award competition. The competition is open to all senior undergraduate students of civil, mechanical or electrical engineering. The national competition prizes are $250, $150 and $75.

CANADIAN INSTITUTE OF MINING AND METALLURGY PRIZES. – Two prizes $400 and $200, for the best and second best technical paper prepared by undergraduates before receiving a Bachelor's degree on a subject appropriate to any one of the Institute's Technical Divisions, namely Coal, Geology, Industrial Minerals, Mechanical/Electrical, Metallurgy, Metal Mining, and Petroleum and Natural Gas. Papers should be submitted to the Canadian Institute of Mining & Metallurgy, 1117 St. Catherine St.W., Montreal, PQ, before January 15.

DAWSON-PORTER MEMORIAL PRIZE. – $300, in memory of Victor E. Dawson and John Bonsall Porter to be awarded to the best student entering the final year of the Mining Engineering program.

ENGINEERING INSTITUTE OF CANADA (ASSOCIATE SECTION, MONTREAL BRANCH) PRIZES. – Two prizes, $50 and $25, for the best and second best papers in any branch of engineering presented at the Annual Students' Night sponsored by the Student Guidance Committee. Details may be obtained from the Faculty representative of the Engineering Institute of Canada.

H.L. FETHERSTONHAUGH BOOK PRIZE. – Established in memory of the late H.L. Fetherstonhaugh, M.C., F.R.A.I.C., F.R.I.B.A., R.C.A., a former member of staff in the School of Architecture. Awarded annually by the School of Architecture to the student with the highest standing in the course Professional Practice.

ROBERT FORSYTH PRIZE IN CIVIL ENGINEERING. – $200, bequeathed by the late Miss Jeanie Forsyth, and awarded to a "worthy and needy" student of the graduating class who secures high standing in the subjects of Theory of Structures and Structural Design.

G. GORDON GALE MEMORIAL PRIZE. – $325, established by his colleagues, friends and family in memory of G. Gordon Gale, a graduate of Civil Engineering at McGill University. To be awarded to a student entering the final year who has attained a very high aggregate standing and shows qualities of leadership and engineering promise.

JAMES DICKIE HALL PRIZES. – Two prizes of $500 each, one in Mining Engineering and one in Metallurgical Engineering, established by Oliver Hall in memory of his son, James Dickie Hall, lost near Cannes June 1944 in an air battle between four R.C.A.F. and more than ninety enemy planes. Open to students entering the Second or Third year of the above courses and awarded for the best technical paper in each discipline. Not awarded unless the papers are of high quality.

MURDOCH LAING PRIZE. – $1300, for the design of a medium cost city house, established by the late Mrs. Florence B. Laing in memory of her son (formerly a student in the School of Architecture) who was killed at Courcelette in 1916 while serving with the 24th Canadian Infantry Batallion. Awarded in a competition held during the summer prior to entering the B.Arch. program.

McCHARLES PRIZE. – $1000. a gift of the late Aeneas McCharles, for the discovery of improved methods of treating Canadian ores or minerals, for the development of new life-saving devices in the power and light industry, or for notable achievement in scientific research in any useful practical line. Open to any Canadian. For further information apply to the Engineering Faculty Office.

McGILL ALUMNAE SOCIETY PRIZE. – $100, presented upon graduation to a distinguished student for excellence and high academic standing. Preference given to women students.

ORDER OF QUEBEC LAND SURVEYORS PRIZE. – $25, open to students in Civil Engineering and awarded at the the end of the Second year by the Corporation to the student obtaining the highest standing in the subjects of the undergraduate course in engineering comprising Surveying, up to the end of the Second year.

PRIX DE L'ASSOCIATION QUÉBÉCOISE DU TRANSPORT ET DES ROUTES INC. (A.Q.T.R.). – D'une valeur totale de $500. est offert chaque année dans le but d'encourager les étudiants sous-gradués à s'intéresser aux techniques de la route et des transports. Le prix est attribué à l'étudiant de l'une des Facultés de Génie du Québec qui soumet le meiller travail: le travail doit être présenté à un professeur qui transmet au jury de l'A.Q.T.R. les deux meilleurs travaux de ses élèves. Les deux travaux mis en concours doivent parvenir avant le 31 décembre au secrétariat de l'A.Q.T.R., C.P. 218, succursale Montréal-Nord. Montréal H1H 5L2. Le travail gagnant sera publié dans la revue "Routes et Transports".

LOUIS ROBERTSON PRIZE. – Founded by Mr. and Mrs. John A. Robertson, in memory of their son, John Louis Armour Robertson, who was killed in World War I on July 18, 1916. A book prize for the student obtaining the highest standing in History of Architectural Theory II in the School of Architecture.

SALMAN MEMORIAL PRIZE. – $100, established in 1980 in memory of the late Talat Salman, distinguished Professor of Mineral Dressing and Macdonald Professor of Mining in the Department of Mining and Metallurgical Engineering. For the best Technical Report submitted by a student entering the final year, preference being given to a report dealing with Mineral Dressing. Awarded by the Faculty of Engineering Scholarships Committee on the recommendation of the Department of Mining and Metallurgical Engineering.

DAVID E. AND RONNIE SCHOUELA PRIZE. – $200, founded in 1980 by their cousins in memory of David (B.Eng. '75, Mechanical Engineering, Honours Program) and Ronnie Schouela. Awarded for the best final thesis in the Honours Program in Mechanical Engineering. Awarded by the Faculty of Engineering Scholarships Committee on the recommendation of the Mechanical Engineering Department.

SOCIETY OF CHEMICAL INDUSTRY MERIT AWARDS. – Three Merit Awards consisting of a gold key and a year's subscription to "Chemistry and Industry" awarded to the three graduating students who achieve the best results in: (a) the B.Sc. course with Honours in Chemistry, or Joint Honours in Chemistry and some related science (b) the B.Eng. course in Chemical Engineering (c) the Honours course in Biochemistry. Awarded by the Scholarships Committees of the Faculty of Science and the Faculty of Engineering on the recommendations of the Departments concerned.

PROFESSOR JULES W. STACHIEWICZ MEMORIAL PRIZE. – $300, established by his relatives, colleagues and friends in memory of the late Professor Jules W. Stachiewicz, Chairman of the Department of Mechanical Engineering. To be awarded annually to a graduating student who has shown exceptional qualities of leadership, dedication and engineering promise in the design courses of the Mechanical Engineering program. Awarded by the Faculty of Engineering Scholarships Committee on the recommendation of the department.

PHILIP J. TURNER PRIZE. – $450, presented by A.B. Darbyson, B.Arch. '15, to the student in the School of Architecture obtaining the highest standing in Design and Construction II.

Medals

BIRKS GOLD MEDAL. – Awarded by Henry Birks & Sons (Montreal) for the best graduating student in Metallurgical Engineering.

ERNEST BROWN GOLD MEDAL. – Founded by the late Mrs. Ernest Brown in 1952 in memory of her husband the late Ernest Brown, M.Sc., M.Eng., D. Eng., Dean of the Faculty of Engineering from 1930 to 1942. Awarded to the student in the graduating class in any of the Departments of Engineering showing the highest ability throughout the undergraduate course. While academic standing is of primary importance, account is also taken of qualities of leadership and ability to work with others.

BRITISH ASSOCIATION MEDALS. – Founded by the British Association for the Advancement of Science in commemoration of its meeting held in Montreal in 1884. Open for competition to students of the graduating class in each of the Engineering courses, and, if the examiners so recommend, is awarded to the student taking the highest position in the final examinations.

CHARLES MICHAEL MORSSEN GOLD MEDAL. – Established by Mrs. C. Michael Morssen in memory of her husband, Charles Michael Morssen, a benefactor of the Faculty of Engineering for many years. Awarded to a student of high academic standing, and exceptional engineering promise in the graduating class in any of the Departments of Engineering.

ROYAL ARCHITECTURAL INSTITUTE OF CANADA MEDAL. – Offered to the student who has achieved the highest standing in the B.Arch. program, and who gives promise of being an architect of distinction after graduation. Selection is made by School of Architecture.

ARTHUR SURVEYER GOLD MEDAL. – Established in memory of Dr. Arthur Surveyer, founder of the Canadian firm that evolved into The SNC Group, now internationally known in the engineering field. Awarded to a student of high academic standing and exceptional engineering promise in the graduating class in any Department of the Faculty of Engineering. An officer of the SNC Group will present a cheque to the medal winner after Convocation.

Bursaries and Loan Funds

For other financial assistance, see Section 3.

AMERICAN SOCIETY FOR METALS BURSARY. – $600, offered by the Montreal Chapter of the American Society for Metals to a student in any year of the Metallurgical Engineering course. Awarded by the Scholarships Committee of the Faculty of Engineering on the recommendation of the Department of Mining and Metallurgical Engineering on the basis of academic standing, engineering promise, and financial need.

DOUGLAS TUTORIAL BURSARIES. – The late Dr. James Douglas, who was a member of the Board of Governors, provided for tutorial bursaries in the Faculty of Engineering. The circumstances of the applicants as well as their academic standing are considered. Students in the Second and Third years of Engineering are eligible. Apply in writing to the Dean's Office on or before September 15.

RICHARD S. LEA TUTORIAL BURSARIES. – The late Mrs. Wanda Lea, widow of the late Richard S. Lea, Consulting Engineer and graduate in Applied Science of McGill University, provided a fund of $5000, the revenue of which provides bursaries given to suitable students in their last two years of Engineering. Apply in writing to the Dean's Office on or before September 15.

MONTREAL WOMEN'S ASSOCIATION OF THE CANADIAN INSTITUTE OF MINING AND METALLURGY BURSARIES. – Two bursaries of $300 each, one to a student in Mining Engineering and one to a student in Metallurgical Engineering. Awarded by the Faculty of Engineering Scholarships Committee on the recommendation of the Chairman of the Mining and Metallurgical Engineering Department.

CHARLES MICHAEL MORSSEN BURSARY FUND. – Established by Mrs. C. Michael Morssen in memory of her husband, Charles Michael Morssen, to assist worthy students in any year of the Faculty of Engineering. Awarded by the Scholarships Committee of the Faculty of Engineering on the basis of academic record and financial need.

SEPARATOR ENGINEERING LIMITED BURSARY. – $375, open to undergraduate students enrolled in Chemical, Mechanical or Metallurgical Engineering. Awarded by the Scholarships Committee of the Faculty of Engineering on the basis of financial need and academic standing.

GORDON SPROULE MEMORIAL BURSARY. – $600, offered by the Montreal Chapter of the American Society for Metals to a student in the penultimate year of the Metallurgical Engineering course. Established in memory of Gordon Sproule, member of the staff of the Department of Metallurgical Engineering from 1918 to 1953, in appreciation of his ability and his many services to the Society. Awarded by the Scholarships Committee of the Faculty of Engineering on the recommendation of the Department of Mining and Metallurgical Engineering on the basis of academic standing, engineering promise, and financial need.

2.7 OPEN TO STUDENTS IN THE FACULTY OF LAW

For scholarships and prizes open to undergraduates in all Faculties, see Section 2.2.

For financial assistance, see Section 3.

For details of scholarships, bursaries and prizes in Law, see Faculty of Law Announcement.

2.8 OPEN TO STUDENTS AT MACDONALD CAMPUS In the Faculty of Agriculture (Including School of Food Science)

For scholarships, and prizes open to undergraduates in all Faculties, see Section 2.2.

For financial assistance, see Section 3.

For details of scholarships, bursaries, and prizes in Agriculture and Food Science, see the Macdonald Campus Announcement for the Faculty of Agriculture and School of Food Science.

2.9 OPEN TO STUDENTS IN THE FACULTY OF MANAGEMENT

For scholarships and prizes, open to undergraduates in all Faculties, see Section 2.2.

For financial assistance, see Section 3.

General Regulations in Management

1. Awards are generally made during the Summer on the basis of the academic standing in the preceding Fall and Winter terms. To be eligible for an award, the student must have successfully completed at least 27 credits during the preceding academic session.
2. No applications are required except in the case of the Stephen S. Goldbloom Memorial Prize for which the Faculty Scholarships Committee welcomes recommendations, substantiated by curriculum vitae, from individual students and student groups and clubs. For all other awards, eligible students are automatically considered by the Faculty Scholarships Committee.

Scholarships, Prizes and Awards

ARTHUR ANDERSEN & CO. SCHOLARSHIP. – $750, to be awarded to an Accounting student entering the final year of the B.Com. program and planning to continue studies after graduation with a firm of Chartered Accountants. Awarded by the Faculty of Management Scholarships Committee for overall academic excellence.

ROBERT BRUCE SCHOLARSHIPS. – $100, tenable for two years, bequeathed by the late Robert Bruce, of Québec City. Awarded for high academic standing in the examinations at the end of the initial year. One scholarship is available in each of the Faculties of Arts, Management and Science. Awarded by the Faculty Scholarships Committees.

CANADA PERMANENT TRUST PRIZES. – Two prizes of $500 and $300, awarded by the Faculty of Management to students entering their final year of the B.Com. program for excellence in the first two years of their program.

CHARTERED ACCOUNTANTS STUDENTS' SOCIETY OF QUEBEC PRIZE IN ACCOUNTANCY AND AUDITING. – $100, established in 1974 by the Chartered Accountants Students' Society of Québec. Awarded to the student receiving the highest average grades in Accountancy and Auditing in the final year. Awarded by the Faculty of Management Scholarships Committee.

CHERRY PRIZES. - *See Section 2.3.*

CLARKSON GORDON PRIZE. – $300, awarded at the end of the Final year to the student who obtains the highest standing in Accounting and Auditing.

COMMERCE 1925 AWARDS. – Two awards, one of $500 and one of $250, awarded by the Scholarships Committee of the Faculty of Management on the recommendation of the Dean to the student obtaining the highest marks in Accountancy at the end of the Third year of the Commerce course.

DR. J.A. COOTE PRIZE IN ORGANIZATIONAL BEHAVIOUR AND PERSONNEL. – $150, awarded to the graduating B.COM. student with high standing in the Organizational Behavior and Personnel Concentration Group.

MARION McCALL DALY AWARD. - *See Section 2.3.*

DELOITTE HASKINS & SELLS PRIZE. – $500, awarded by the Faculty of Management Scholarships Committee to the outstanding graduating student in the Accounting program demonstrating excellence in Taxation.

L.J. FORGET & COMPANY AWARD. – Two awards, one of $500 and one of $250, established in 1973 by L.J. Forget & Company. Awarded by the Scholarships Committee of the Faculty of Management to graduating students for excellence in the Finance courses in the Bachelor of Commerce Program.

DR. M. RICHARD GELFAND PRIZE IN MARKETING. – $150, awarded by the Faculty of Management to a final year student in the Management Concentration Group who is registered in the area of Marketing.

GENERAL MOTORS SCHOLARSHIPS. – General Motors of Canada Limited offers one or more $1,000 scholarships for students entering the final year of an Engineering, Business or Computer Science related program. For further information consult the Associate Dean's Office.

STEPHEN S. GOLDBLOOM MEMORIAL PRIZE. – $200, established by friends and classmates in memory of Stephen S. Goldbloom, a second year Management student active in campus student life and a student representative on the Board of Governors, who passed away during the Summer of

1975. To be awarded to a student graduating in the Faculty of Management with good academic standing having made a notable contribution to student life.

INSTITUTE OF INTERNAL AUDITORS PRIZE. – $100, to an outstanding graduating student in Auditing. Awarded by the Faculty of Management Scholarships Committee.

INTERNATIONAL SEA-LAND SHIPPING SERVICE LTD. SCHOLARSHIP. – $600, awarded by the Faculty of Management Scholarships Committee to a student in the B.Com. program having completed the second year and proceeding to the final year. Awarded on the basis of high academic standing in the first two years of the program. Preference will be given to bilingual students with an interest in the Transportation field.

JOSEPH H. JACOBS PRIZE. – $150, bequeathed by Joseph H. Jacobs as a prize for Second year Accountancy.

SIR WILLIAM MACDONALD SCHOLARSHIPS. – Two scholarships of $800 each, open to all students in the Second and Third years.

FACULTY OF MANAGEMENT PRIZES. – The Faculty of Management awards three $100 prizes to students in the Management Concentration Groups in their final year, registered in the areas of Computers and Systems, Finance, Small Business, and Quantitative Methods.

MARSH AND MCLENNAN AWARD. – $570, awarded to a student entering the final year of the B.Com. program, for excellence in the first two years of the program.

McGILL ALUMNAE SOCIETY PRIZE. – $100, presented upon graduation to a distinguished student for excellence and high academic standing. Preference given to women students.

LADDIE MILLEN MEMORIAL PRIZES. – Established by Mr. J. Ernest Millen in memory of his son, Laddie Millen, who was killed in action in World War I. Three prizes will be available annually to Industrial Relations students in the Bachelor of Commerce Program. The awards will be in the amounts of $500, $250, and $250. The graduating students who have placed first and second in the three-year Industrial Relations majors program will receive awards of $500 and $250 respectively. A prize in the amount of $250 will be awarded to the student receiving the top mark for a competitive essay in the Introductory course in Industrial Relations. Decisions with respect to the granting of these awards will be made by the Associate Dean, on the advice of a committee of Industrial Relations faculty members.

MISAWA HOMES PRIZE IN INTERNATIONAL BUSINESS. – $150, to a student in the final year of the B.Com. program for outstanding performance in the International Business Management Concentration Group. To be awarded on recommendation of the International Business Group Adviser and the Chairman of the Faculty of Management Scholarships Committee.

MARJORIE PIKE SCHOLARSHIP. – $1000, established in 1981 by the Advertising and Sales Executives Club of Montreal. Awarded for academic excellence in the area of Marketing to a student entering the final year of the B.Com. program. Awarded by the Faculty of Management Scholarships Committee.

PRICE WATERHOUSE & CO. AWARD. – $250, awarded by the Scholarships Committee of the Faculty of Management to a student in the B.Com. program completing the Second year and proceeding to the final year and planning to continue studies with a practising firm of chartered accountants. The winner must have high standing in the Second year examinations and outstanding academic record, ability, and other qualifications.

HERBERT E. SIBLIN AWARD. – $250, established by Herbert E. Siblin, B.Com. '50, C.A. Awarded by the Faculty of Management Scholarships Committee to a student of outstanding merit entering the second year of the B.Com. program.

HYMAN HERBERT STEIN AWARD. – $350, in memory of the late Hyman Herbert Stein, B.Com. 1925, for a student entering the Second year of the three-year Commerce Program. Awarded at the discretion of the Dean of the Faculty. Ability and financial need will be taken into consideration when making the award.

TOUCHE ROSS & CO. AWARD. – $250, to a student who has completed the Second year, will be entering the final year in the B.Com. program, and who intends on graduation to qualify as a Chartered Accountant. Awarded for high standing in the Second year and on academic record, ability and personality and other characteristics considered to be suitable.

CECIL VINEBERG SCHOLARSHIP. – $600, established in 1978 by Richter, Usher and Vineberg in honour of Mr. Cecil Vineberg, the senior member of the firm. It is open to accounting students entering the final year of the B.Com. program who intend to qualify as Chartered Accountants upon graduation. It is awarded at the end of the second year on the basis of excellence in the second year accounting courses and the student's overall academic record. Awarded by the Faculty of Management Scholarships Committee.

ROY M. WOLVIN MEMORIAL SCHOLARSHIPS. – Five scholarships of $500 each given by the late Mrs. Roy M. Wolvin in memory of her husband. Awarded for high academic standing. Two scholarships are available in the Faculty of Engineering and one scholarship is available in each of the Faculties of Arts, Management and Science. Awarded by the Faculty Scholarships Committees.

WOMEN'S PERSONNEL GROUP OF MONTREAL BOOK PRIZE. – *See Section 2.3.*

Medals

SIR EDWARD BEATTY MEDAL. – Endowed by the late Sir Edward Beatty, former Chancellor of the University. Awarded to the student in the B.Com. program with the highest distinction in Economics. Awarded, at present, on the aggregate marks for the three full year courses, Principles of Economics (or Honours alternatives), Money and Banking, and Economic Analysis (or Honours alternatives).

FINANCIAL EXECUTIVES INSTITUTE SILVER MEDAL IN FINANCE. – Offered by the FEI Montreal Chapter to an undergraduate student graduating with the highest overall average in finance. Awarded by the Scholarships Committee of the Faculty of Management.

2.10 OPEN TO STUDENTS IN THE FACULTY OF MEDICINE

For scholarships and prizes open to undergraduates in all Faculties, see Section 2.2.

For financial assistance, see Section 3.

For details of scholarships, bursaries and prizes in Medicine, see Faculty of Medicine announcement.

2.11 OPEN TO STUDENTS IN THE FACULTY OF MUSIC

For scholarships and prizes open to undergraduates in all Faculties, see Section 2.2.

General Regulations in Music

Scholarships, awards, prizes, and bursaries available in the Faculty of Music are awarded at the discretion of the Dean and the Faculty Scholarships Committee. Application forms may be obtained from the Dean's Office.

Scholarships

ANONYMOUS DONOR'S SCHOLARSHIP. – Established by an anonymous donor in 1959 to cover the necessary tuition fees for gifted Music students at McGill.

AUSTRIAN SOCIETY SCHOLARSHIP. – $500, to aid a student from the Faculty of Music to study in Austria during the summer.

ELLEN BALLON PIANO SCHOLARSHIP. – Approximately $900 to be given to a piano student. The funds provided by the interest on gifts made by Miss Ellen Ballon, a graduate of the Conservatorium and by the Julius Block Scholarship Fund and the Cummings Foundation Scholarship Fund.

DEPARTMENT OF PERFORMANCE SCHOLARSHIP FOR OUTSTANDING ACHIEVEMENT. – $1000, awarded by the Faculty of Music Scholarships Committee on recommendation from the Department of Performance.

DEPARTMENT OF SCHOOL MUSIC SCHOLARSHIP FOR OUTSTANDING ACHIEVEMENT. – $1000, awarded by the Faculty of Music Scholarships Committee on recommendation from the Department of School Music.

DEPARTMENT OF THEORY SCHOLARSHIP FOR OUTSTANDING ACHIEVEMENT. – $1000, awarded by the Faculty of Music Scholarships Committee on recommendation from the Department of Theory.

MADAME PAULINE DONALDA MEMORIAL SCHOLARSHIP. – $500, to be given to a Voice student. Established in memory of the late Pauline Donalda by a donation from the Opera Guild Incorporated.

ENGLISH SPEAKING UNION SCHOLARSHIP. – $500, to aid an instrumental or voice student from the Faculty of Music to study in England during the summer.

FACULTY OF MUSIC SCHOLARSHIPS. – Tuition scholarships available to all students in a degree or diploma program in Music. The fund originated through the generosity of patrons of the Martlet Concert and Ball which took place in April 1960. Subsequently many former students and friends of the Faculty of Music have contributed to the fund.

ARTHUR AND HELEN HENDERSON SCHOLARSHIP. – $600, preference will be given to students in organ and church music. Open to both graduate and undergraduate stucents.

LAKESHORE ORGANISTS' SCHOLARSHIP. – $600, to be given to an Organ student. Preference to be given to a student from the Lakeshore area.

GIAN LYMAN MEMORIAL SCHOLARSHIP. – $600, to be given to a student who is specializing in either the performance or history of early music. Established by the contributions of the family, friends and colleagues of the late Gian Lyman, a distinguished graduate of McGill's Faculty of Music, who died on April 22, 1974.

SIR WILLIAM MACDONALD MEMORIAL SCHOLARSHIPS. – Approximate value $800. Established in 1922 by the University.

MARION MAGOR MEMORIAL SCHOLARSHIPS. – Tuition scholarships to be given to students entering the upper years of the Bachelor of Music course. Founded in 1953 by the family of the late Mrs. R.J. Magor.

SIR WILLIAM PETERSON MEMORIAL SCHOLARSHIPS. – Approximate value $800. Established in 1921 by the University and by friends, graduates and students of the Faculty of Music.

STANMIL SCHOLARSHIP. – $1000, to be awarded to a Performance student entering a degree or diploma program in the Faculty of Music. Awarded and renewed by the Faculty of Music Scholarships Committee. This scholarship is made possible through the gererosity of Stanmil Investments, Inc.

WOMEN ASSOCIATES OF McGILL SCHOLARSHIP. - $750, for high academic standing to an undergraduate student having completed at least one year of the B.Mus. program. Preference is given to women students.

Awards and Prizes

BOOSEY & HAWKES PRIZE. – $100, to be given to a Brass instrumentalist. Donated by the music publishing firm of Boosey & Hawkes (Canada) Ltd.

BRUNEAU PRIZE. – $350, awarded to a piano student in the Faculty of Music. In memory of Mr. and Mrs. AS. Bruneau, the prize is donated by their children.

HERBERT C. CALEY AWARD. – Approximately $300. Prefererce given to students specializing in the performance or history of Baroque and early music. Open to both graduate and undergraduate students. Established by Mrs. Maude Caley in memory of her husband who died December 24, 1980.

MARGUERITE E. CHOQUETTE AWARD. – Approximately $500 to be given to a Piano student who appears to have more than ordinary talent and requires financial assistance to continue studies. Established by a bequest from the estate of the late Miss Marguerie E. Choquette.

NATHALIE CLAIR-FELDMAN MEMORIAL AWARD. – $400, to be given, on the basis of an audition, to a Double Bass student.

DONALDA PRIZE. – $300, founded by a gift from Madame Paulne Donalda.

SARAH FISCHER MEMORIAL AWARD. – Approximately $375 to be given to a Performance student. Established by the friends of the Sarah Fischer Concerts, in memory of Sarah Fischer, celebrated Canadian singer, a dedicated supporter of young music talent, and founder of the Sarah Fischer Concerts for promising young musicians.

EDWARD GRUMAN MEMORIAL PRIZE. – $200, to be given to a promising student in the B.Mus. (School Musc) degree program. Established in memory of the late Edward Gruman who was a student in the Faculty of Music at McGill.

CONSTANCE HAMILTON MEMORIAL PRIZE. – $150, to be given to a student in the Department of School Music. Established by Professor Helmut Blume.

DR. D.M. HERBERT AWARD. – Approximately $350 to be given to a student enrolled in the School Music program who is preparing to become a Choral Specialist. Established in 1967 by the Baron Byng High School Graduates' Choir.

IODE PROVINCIAL CHAPTER OF QUEBEC – SIR CHARLES W. LINDSAY PRIZE. – Established by the Provincial Chapter of the Québec IODE.

BERNARD L. ISSENMAN MEMORIAL AWARD. – Approximately $250 to be given to a full-time student to further his or her musical education. Established by the late Mrs. Benjamin Shulman in memory of her late husband, Mr. Bernard L. Issenman.

ETHEL JAMIESON IVEY AWARD. – $500, established in 1967 by the Charles H. Ivey Foundation in memory of the first Licentiate graduate (violin) of the Music Faculty. Awarded by the Faculty of Music Scholarships Committee to a talented student to further his or her musical education. Preference is given to string instrument students.

RAYMOND LALIBERTÉ PRIZE. – $250, to be given to a Composition student. Established by Mr. Raymond Laliberté, B.Mus. (Comp.) 1970.

McGILL ALUMNAE SOCIETY PRIZE. – $100, presented upon graduation to a distinguished student for excellence and high academic standing. Preference given to women students.

ALAN MILLS MEMORIAL AWARD. – $200, established by the family and friends of the late Alan Mills. Preference will be given to students engaged in research in Canadian Folk Music or to students in Voice Performance. Available to both graduate and undergraduate students in the Faculty of Music.

PRIX DE LA SOCIÉTÉ DE MUSIQUE CANADIENNE. – $300, to be given to a Composition student, undergraduate or graduate, who is a Canadian citizen. Established by La Fondation les Amis de l'Art and given in alternating years to McGill and l'Université de Montréal. Available to McGill students in 1981/82.

H. R. RESSLER MEMORIAL SCHOLARSHIP. – Approximately $150 to be given to a Violin student. Founded in 1950 by the late Mr. H.R. Ressler.

MARTHA SCHILLER MEMORIAL AWARD. – $150, to be given to a Voice student in the Faculty of Music. Established by Mrs. Zitta Hoenich in memory of her sister.

LAURIE ROBIN SLAPCOFF MEMORIAL AWARD. – Approximately $375 to be given to a Voice student, preferably full time. Established in June 1971 by the family and friends of the late Laurie Robin Slapcoff.

WILLIAM ARTHUR WEIR MEMORIAL AWARD. – Approximate value $400. Established by Mr. Donald Weir in memory of his late father.

CONSTANCE WILLEY PRIZE. – Approximately $75 to be given to a Piano student. Established by a bequest of the late Mrs. Constance Willey.

Bursaries and Loan Funds

For other financial assistance, see Section 3.

GLADYS GLASSCO MEMORIAL BURSARY FUND. – Established in 1954 by Mr. Gordon B. Glassco in memory of his wife. Awarded by the Dean of the Faculty of Music to any deserving student in the Faculty.

LILY LAUTERMAN MEMORIAL BURSARY. – Approximately $375 to be given to a student with financial need. Established by a bequest from the estate of the late Miss Rose Annie Lauterman.

2.12 OPEN TO STUDENTS IN THE SCHOOL OF NURSING

For scholarships and prizes open to undergraduates in all Faculties, see Section 2.2.

Scholarships

ALUMNAE ASSOCIATION OF THE SCHOOL OF NURSING SCHOLARSHIP. – In memory of Dr. Marion Lindeburgh, the Alumnae Association has established a scholarship of $750, open to graduate, registered nurses who wish to study at the School of Nursing, and who meet the entrance requirements. Other scholarships are also available for students in the B.Sc. (N.) program. The amounts vary with individual needs. Applications should be submitted by June 1 to the Chairman of the Scholarship Committee, Alumnae Association, 3506 University St., Montreal, PQ H3A 2A7.

Prizes

LEXY L. FELLOWES MEMORIAL PRIZE. – $200, to be awarded to a student of high academic and professional achievement, in the Bachelor of Science (Nursing) program, on the recommendation of the School.

McGILL ALUMNAE SOCIETY PRIZE. – $100, presented upon graduation to a distinguished student for excellence and high academic standing. Preference given to women students.

Bursaries and Loan Funds

For other financial assistance, see Section 3.

GOVERNMENT BURSARIES. – A limited number of bursaries are given by the Province of Québec to nurses who wish to remain in the province, and who have been accepted for admission to the School.

KELLOGG FOUNDATION LOAN FUND. – Established through the generosity of the Foundation to assist students who have unexpected expenses while registered in courses at the School. Consult the Director of the School of Nursing.

MONTREAL GENERAL HOSPITAL BURSARIES. – A limited number of bursaries available for nurses studying in the Baccalaureate and Master's programs. For further information apply to: The Director of Nursing, Montreal General Hospital, 1650 Cedar Avenue, Montreal, PQ H3G 1A4.

MONTREAL GENERAL HOSPITAL SCHOOL OF NURSING ALUMNAE ASSOCIATION BURSARIES. – Bursaries are available for graduates of the Montreal General Hospital School of Nursing, who have been accepted into an approved university program. For further information apply to the President, School of Nursing Alumnae Association, Department of Nursing, the Montreal General Hospital, 1650 Cedar Avenue, Montreal, Québec, H3G 1A4.

ORDER OF NURSES OF QUÉBEC BURSARIES. – A limited number of bursaries are awarded each year for post-basic study in nursing. For programs leading to the Baccalaureate degree, or to the Master's degree, the award is $3,000. Applications should be submitted by May 15 to the Order of Nurses of Québec, 4200 Dorchester West, Montreal, PQ H3Z 1V2.

ROYAL VICTORIA HOSPITAL DEPARTMENT OF NURSING BURSARIES. – Bursaries are offered to senior staff members for postgraduate study. Applications should be submitted by March 1 to the Director of Nursing Royal Victoria Hospital, 687 Pine Avenue West, Montreal, PQ H3A 1A1.

ROYAL VICTORIA HOSPITAL SCHOOL OF NURSING ALUMNAE ASSOCIATION BURSARY. – The Alumnae Association bursary of $1,000 and the Jean Allison memorial bursary of $1,000 are open to graduates of the Royal Victoria Hospital School of Nursing accepted in an approved University program. Apply before March 31 to Nursing Alumnae Office, Nurses' Home, Royal Victoria Hospital, 687 Pine Ave. West, Montreal, PQ H3A 1A1.

ST. JOHN AMBULANCE (ORDER OF ST. JOHN) OF CANADA BURSARIES. – Bursaries from the St. John Ambulance (Margaret McLaren Memorial Fund) will be awarded to student nurse applicants in the final year of their nursing education in the Diploma and Baccalaureate programs in Canada. Preference will be given to qualified applicants who are volunteers with St. John Ambulance. Applications must reach National Headquarters not later than May 1st, addressed to the Chairman, Bursary Committee, St. John Ambulance National Head-

quarters, 312 Laurier Ave. East, Ottawa, Ontario, K1N 6P6.

VICTORIAN ORDER OF NURSES FOR CANADA BURSARIES. – The Victorian Order of Nurses for Canada offers bursaries of $2,500 to nurses enrolling at a Canadian university in a diploma course or in the final year of a basic or post-basic degree program which includes preparation in public health nursing. Bursary recipients agree to work one year for the Victorian Order in any branch where their services are required. Inquiries to Victorian Order of Nurses for Canada, 5 Blackburn Ave., Ottawa, ON K1N 8A2.

2.13 OPEN TO STUDENTS IN THE SCHOOL OF PHYSICAL AND OCCUPATIONAL THERAPY

For scholarships and prizes open to undergraduates in all Faculties, see Section 2.2.

For financial assistance, see Section 3.

Prizes and Awards

CANADIAN ASSOCIATION OF OCCUPATIONAL THERAPISTS' AWARD. – Presented to the student with the highest standing in theory throughout the B.Sc. (Occ.Ther.) program.

CANADIAN PHYSIOTHERAPY ASSOCIATION BOOK PRIZE. – Awarded to the student with the highest standing throughout the B.Sc. (Phys.Ther.) program.

HELEN M. GAULT AWARDS. – Presented on the recommendation of the staff and students in the School of Physical and Occupational Therapy to two students, one graduating in Occupational Therapy, the other graduating in Physical Therapy, who have demonstrated the most outstanding qualities of leadership, scholarship and professional achievement throughout their undergraduate programs. Established by the graduates and staff of the School of Physical and Occupational Therapy as an ongoing tribute to the outstanding leadership of Helen M. Gault throughout her career as a teacher, scholar and professional.

JEANNETTE HUTCHISON MEMORIAL PRIZE. – Presented by the Professional Corporation of Occupational Therapists of Québec to the student with the highest standing in clinical application of Occupational Therapy throughout the B.Sc. (Occ. Ther.) program.

McGILL ALUMNAE SOCIETY PRIZE. – $100, presented upon graduation to a distinguished student for excellence and high academic standing. Preference given to women students.

CAROL RUTENBERG – SILVER MEMORIAL AWARD. – Presented to the student with the highest standing in the final year of the B.Sc. (Phys. Ther.) program.

WOMEN ASSOCIATES OF McGILL SCHOLARSHIP. – $750 for high academic standing to an undergraduate student having completed at least one year in the B.Sc. degree program in Physical or Occupational Therapy. Preference is given to women students. Awarded by the School of Physical and Occupational Therapy.

2.14 OPEN TO STUDENTS IN THE FACULTY OF RELIGIOUS STUDIES

For scholarships and prizes open to undergraduates in all Faculties, see Section 2.2.

For financial assistance, see Section 3.

W.M. BIRKS AWARDS. – Three awards of $100 each, to the students graduating with the best records in the B.A. (Religious Studies), B.Th., S.T.M. and M.A. (Religious Studies) programs.

HOUSTON BURSARY. – Established by a bequest of Thomas Houston, for students studying for the ministry of the Presbyterian Church in Canada or the United Church of Canada, and preference is given to candidates whose mother tongue is French. Awarded by the Faculty of Religious Studies and open to students in the Faculty of Arts and the Faculty of Religious Studies.

McGILL ALUMNAE SOCIETY PRIZE. – $100, presented upon graduation to a distinguished student for excellence and high academic standing. Preference given to women students.

RELIGIOUS STUDIES BURSARY FUND. – Established in 1980 by an anonymous donor for undergraduate or graduate students in theological degree programs in the Faculty of Religious Studies, with a preference to francophone students. Awarded by the Faculty on the basis of academic standing and financial need.

NEIL STEWART PRIZES. – Two $200 prizes, established by Mr. Neil Stewart of Vankleek Hill in 1878. Awarded by the Faculty of Religious Studies to students studying biblical Hebrew language and literature and registered in that Faculty.

Students of the Faculty of Religious Studies who are registered also in the Montreal Diocesan Theological College; the United Theological College, or in the Presbyterian College, will be eligible for prizes, scholarships, and bursaries as announced in the calendars of these institutions.

2.15 OPEN TO STUDENTS IN THE FACULTY OF SCIENCE

For scholarships and prizes open to undergraduates in all Faculties, see Section 2.2.

For financial assistance, see Section 3.

General Regulations in Science

1. No applications are required except in the case of the Moyse Travelling Scholarships. Awards are made on the basis of academic standing in the regular session. Awards to graduating students are made by the Faculty on the recommendation of the Faculty Scholarships Subcommittee. Awards to lower year students are made by the Sub-committee acting in the name of the Faculty.
2. Unless restricted by the deed of gift or faculty regulations the awards are open to all students studying for the B.Sc. degree.
3. Only those students who have completed at least 27 credits in the Regular Session of the academic year preceding the award will be eligible for scholarships.
4. Scholarships will be awarded only if an adequate standard is attained for scholarship recognition.
5. If in any university year there is not a sufficient number of candidates showing adequate merit, any one or more of the scholarships offered for competition may be given to more deserving candidates in another year.
6. In order to hold an undergraduate scholarship the successful candidate must proceed regularly in a degree program in the Faculty of Science and fulfill any further conditions prescribed for the scholarship.

Scholarships

MARGARET JANE ALLAN SCHOLARSHIP. – $1000, bequeathed in 1929 to the Royal Victoria College by Mrs. Agnes W. Allan. For a woman student showing high academic merit in the initial year of the B.Sc. program. Tenable in the Faculty of Science.

SIR EDWARD BEATTY MEMORIAL SCHOLARSHIPS IN MATHEMATICS. – Three awards of $500 each, established in 1927 by the late Sir Edward Beatty, former Chancellor of the University. Awarded in recognition of high academic merit to students entering the intermediate or final year in Major or Honours Mathematics. Awarded by the Faculty of Science Scholarships Committee on the recommendation of the Department of Mathematics.

ROBERT BRUCE SCHOLARSHIPS. – $100, tenable for two years, bequeathed by the late Robert Bruce, of Québec City. Awarded for high academic standing in the examinations at the end of the initial year. One scholarship is available in each of the Faculties of Arts, Management and Science. Awarded by the Faculty Scholarships Committees.

CHEVRON STANDARD LIMITED GEOLOGICAL SCHOLARSHIP. – $750, awarded by the Scholarships Committee of the Faculty of Science to aid an outstanding student to complete the final year in Geology or Solid Earth Geophysics. Preference given to students interested in oil exploration and production.

EMILY ROSS CRAWFORD SCHOLARSHIPS. – $800 each. Established by the late Stuart L. Crawford, in memory of his mother, Emily Ross Crawford. Awarded by the Faculty of Science Scholarships Committeee to candidates of high academic merit in the work of the U1 or U2 year. Tenable in the Faculty of Science.

MARION McCALL DALY AWARD. - *See Section 2.3.*

DOW-HICKSON SCHOLARSHIPS. – $1,500 each. Established in 1957 by a bequest from the late Dr. J. William A. Hickson and awarded to students entering the penultimate or the final year of the Honours courses in English Literature, Philosophy or Psychology. Awarded by a joint committee of the scholarships committees of the Faculties of Arts and of Science upon the recommendations of the departments concerned.

GENERAL MOTORS SCHOLARSHIPS. – General Motors of Canada Limited offers one or more $1,000 scholarships for students entering the final year of an Engineering, Business or Computer Science related program. Further information may be obtained from the Engineering Faculty Office.

R.P.D. GRAHAM SCHOLARSHIPS AND MEDALS. – Endowed by former students of Dr. R.P.D. Graham, Professor Emeritus of Mineralogy. One scholarship of $1,500 is available to students entering an intermediate or the final year of the B.Sc. program in Geological Sciences. A second scholarship fo $1,500 is available to students entering the second or third year of the B.Eng. program in Mining Engineering. Both scholarships are awarded by the faculty scholarships committees on the recommendation of the chairman of the department concerned. A bronze medal bearing the likeness of Professor Graham is given to each scholarship winner.

WILLIAM HENRY HOWARD SCHOLARSHIPS. – Six scholarships of $900 each, bequeathed in 1955 by the late Mrs. Florence P. Howard in memory of her husband. Open to undergraduate and graduate students in Metallurgy, Chemical Engineering and Geology. Two scholarships awarded and renewable by the Faculty of Science Scholarships Committee upon the recommendation of the Department of Geological Sciences for scholastic ability and general promise.

FREDERIC J. LE MAISTRE AWARD. – $450, to the student achieving the highest academic merit in U2 of the Chemistry Major Program. Awarded by the Faculty of Science Scholarships Committee on

the recommendation of the Department of Chemistry.

LOGAN SCHOLARSHIPS. – Two scholarships of $250 each, one for work in Geological Sciences and the other for work in Biology. Open to students entering an intermediate year or the final year of the undergraduate course. Awarded by the Faculty of Science on the recommendations of the Departments of Geological Sciences and Biology.

SIR WILLIAM MACDONALD SCHOLARSHIPS. – Two scholarships of $800 each, open to all students entering an intermediate year or the final year.

McGILL ALUMNAE CARRIE DERICK SCHOLARSHIP. – $500, established in honour of the late Professor Carrie M. Derick, B.A. 1890, first woman professor at McGill. Awarded to a distinguished woman student. Tenable in the Faculty of Science.

McGILL ALUMNAE 75th ANNIVERSARY SCHOLARSHIP. – $500, established in honour of the Alumnae Society's 75th anniversary. Awarded to a distinguished woman student. Tenable in the Faculty of Science.

MAJOR HIRAM MILLS SCHOLARSHIP. – One or more scholarships of $100 for students entering the final year in Anatomy, Biochemistry, Biology, Microbiology and Immunology, or Physiology.

ANNE MOLSON SCHOLARSHIP. – $100, open only to students in the Physical Sciences proceeding from the penultimate year into the Final year. Awarded by the Faculty of Science on the recommendation of the Departments of Physics, Chemistry, and Mathematics.

MONTREAL WOMEN'S ASSOCIATION OF THE CANADIAN INSTITUTE OF MINING AND METALLURGY SCHOLARSHIP. – $300, to a student in Geological Sciences. Awarded by the Faculty of Science Scholarships Committee on the recommendation of the Chairman of the Department of Geological Sciences.

MOYSE TRAVELLING SCHOLARSHIPS. – Founded by the late Right Honourable Lord Athlstan, to commemorate the "splendid services of Dr. Charles E. Moyse, for forty-two years Professor of English, during sixteen of which he was Dean of the Faculty of Arts and Vice-Principal of the University." Two scholarships, normally of $3,500 each tenable for one year. One scholarship to be awarded by the Faculty of Arts for distinction in literary subjects and the other by the Faculty of Science for distinction in scientific subjects. If there is no winner in one of these faculties, both scholarships may be awarded to applicants in the other faculty.

In the absence of applicants of sufficient merit in either of the faculties, applications from final year students in other undergraduate faculties, or from graduate students, may be considered.

Holders must devote the year of tenure to advance study, preferably in a British or European university, but not to the exclusion of other institutions approved by the Faculty of Arts or of Science.

Applications, whether from graduates or from students in the final year of the undergraduate course, should reach the Dean of the Faculty of Arts or of Science not later than April 1. Applications should be accompanied by:

(1) the names of two referees who are familiar with the applicant's work; (2) a detailed and comprehensive statement of the applicant's proposed course of study; the institution or centre at which he, or she, proposes to study; (3) a statement of the applicant's age and nationality.

Awards will be made after the results of final examinations in the final year of the undergraduate course have been determined.

PENHALLOW SCHOLARSHIP IN BIOLOGY. – $400, open to students entering an intermediate year or the final year of the undergraduate course. Awarded by the Faculty of Science on the recommendation of the Department of Biology.

PRINCE OF WALES SCHOLARSHIP. – $150, open to students proceeding from the penultimate year into the final year. Awarded for general distinction by the Faculty of Science on the student's complete academic record.

JANE REDPATH EXHIBITION. – Two awards of $175 each, founded by the late Mrs. Redpath to maintain an exhibition in Arts and Science. Awarded on the results of the initial year to the B.A. or B.S.W. student and to the B.Sc. student with the highest average on the year's work. One award to be made by each of the appropriate Faculty Scholarships Committees.

CARL REINHARDT SCHOLARSHIPS AND BURSARIES. – Established from the estate of Carl Reinhardt. To be used for scholarships or bursaries for undergraduate students in the Departments of Physics and Geological Sciences, and for scholarships or bursaries or in the support of their research for graduate students. Awards are made by the Fellowships Office, Faculty of Graduate Studies and Research, on the recommendations of the Chairmen of the departments concerned. Any amount not used by one of the departments in any year may be taken up by awards in the other department if suitable candidates are available.

I.P. SHARP SCHOLARSHIP. – $1,000 to a student, having completed at least three semesters, for outstanding performance in courses in mathematics and computer science. Awarded on the recommendation of the Director of the School of Computer Science by the Scholarships Committee of the Faculty in which the nominated student is registered.

DR. JOSEPH TANZMAN AWARD. – Established in 1975 in honour of Dr. Joseph Tanzman, M.D. 1927, and to be awarded to a medical student in any given year from the Province of New Brunswick, as a preference. If in any year no such candidate is available, the award may be made to any deserving student in the Faculty of Science. Awarded by the Scholarships Committee of the Faculty of Medicine or Science as the case may be.

JOHN M. WALKLEY JR. R.C.N.V.R. MEMORIAL AWARD. – $350, awarded to the student achieving the highest academic merit in the penultimate year of the Honours Chemistry Program. Awarded by the Faculty of Science Scholarships Committee on the recommendation of the Department of Chemistry.

ROY M. WOLVIN MEMORIAL SCHOLARSHIPS. – Five scholarships of $500 each given by the late Mrs. Roy M. Wolvin in memory fo her husband. Awarded for high academic standing. Two scholarships are available in the Faculty of Engineering and one scholarship is available in each of the Faculties of Arts, Management and Science. One scholarship is awarded by the Faculty of Science Scholarships Committee and is tenable in the Faculty of Science.

WOMEN ASSOCIATES OF McGILL SCHOLARSHIP.– $750, for high academic standing to an undergraduate student having completed at least one year in the B.Sc. program. Preference is given to women students. Awarded by the Faculty of Science Scholarships Committee.

Prizes

E.P. AIKMAN PRIZE IN PHYSICS. – $200, established in 1980 by the family and friends of the late E.P. Aikman. To a student with high academic standing entering the intermediate or final year in Major or Honours Physics. Awarded by the Faculty of Science Scholarships Committee on the recommendation of the Department of Physics.

ROBERT E. BELL PRIZE IN PHYSICS. – $200, established by colleagues and friends in recognition of his services to the University as Principal and Vice-Chancellor. Awarded by the Faculty of Science Scholarships Committee on recommendation of the Department of Physics to a student graduating with high academic standing in Physics who throughout the undergraduate program has shown a marked aptitude for experimental studies in the subject.

CHEMICAL INSTITUTE OF CANADA SILVER MEDAL AND PRIZE. – For high academic merit in the penultimate year of the Honours programs in Biochemistry and Chemistry. One award available annually in each Department on the recommendation of the department.

FANTHAM MEMORIAL PRIZE IN BIOLOGY. – $400, established by a bequest from the late Dr. Annie Fantham in memory of Professor H.B. Fantham, her late husband. Available for award to a graduating student achieving high academic merit in a Zoologically oriented Biology program.

DR. WILLIAM H. HATCHER PRIZE IN CHEMISTRY. – $40, established by the Department of Chemistry and awarded to the student with highest standing in Elementary Organic Chemistry, in which Dr. Hatcher lectured for so many years.

DAVID HARRIGAN MEMORIAL PRIZE. – $300, established in 1980 by his classmates, friends and family in memory of David Harrigan (B.Sc. 1973, M.Sc.A. 1975). Awarded by the Faculty of Science Scholarships Committee on the recommendation of the Department of Geological Sciences to a student with high standing in the Master of Science-Applied course, or to a similarly qualified graduate or undergraduate student with an interest in geochemistry.

ANNE MACINTOSH PRIZE. – $350, endowed by friends and pupils of the late Annie Macintosh and by a special gift of the late Miss I.G. Macintosh. Offered as a prize or prizes to women students in such subject or for such work as the Faculty may determine.

PAUL F. McCULLAGH PRIZE IN ANCIENT GREEK. – *See Section 2.3.*

PAUL F. McCULLAGH PRIZE IN LATIN. – *See Section 2.3.*

McGILL ALUMNAE SOCIETY PRIZE. – $100 presented upon graduation to a distinguished student for excellence and high academic standing. Preference given to women students.

ANNE MOLSON PRIZE IN CHEMISTRY. – $50, for award to a graduating student achieving high academic merit in the Honours program in Chemistry.

E.G.D. MURRAY PRIZE IN MICROBIOLOGY. – $100, established by friends, students and colleagues of the late Professor E.G.D. Murray to perpetuate his name at McGill. Awarded to a graduating student achieving high academic merit in the Honours program in Microbiology and Immunology.

BORIS MUSKATOV PRIZE IN PSYCHOLOGY. – $200, endowed by Miss Serafina Muskatov in memory of her brother, Boris Muskatov, who died on January 9, 1948, while a student. Offered to a student who has completed the penultimate year in the Faculty of Arts or of Science and has done the best work in Psychology. Awarded on the recommendation of the Department of Psychology by whichever Faculty Scholarships Committee is appropriate.

PENHALLOW PRIZE IN BOTANY. – $300, endowed by the Arts Undergraduate Society in 1911, for a graduating student whose complete record shows the highest merit in Botany. At least 24 credits in the subject must have been taken and Ho-

nours students in Biology will receive preference. Awarded by the Scholarships Committee of the Faculty of Science on the recommendation of the Department of Biology.

MOE J. POLISUK MEMORIAL PRIZE IN BIOCHEMISTRY. – $75, established by Mrs. Moe J. Polisuk, awarded to a graduating student achieving high academic merit in the Honours program in Biochemistry. Awarded by the Faculty of Science Scholarships Committee on the recommendation of the Department of Biochemistry.

CLIFFORD B. PURVES PRIZE IN CHEMISTRY. – $550, established by the McGill Student Chapter of the Chemical Institute of Canada in memory of the late Professor Clifford B. Purves. Awarded by the Scholarships Committee of the Faculty of Science on the recommendation of the Department of Chemistry, to the graduating student achieving the highest academic merit in the Chemistry Major Program.

MURIEL ROSCOE PRIZE IN BIOLOGY. – $100, established in 1981 by Dr. and Mrs. Hirsh Rosenfeld in honour of Professor Muriel Roscoe. Awarded to a graduating student of high academic merit in Biology by the Faculty of Science Scholarships Committee on the recommendation of the Department of Biology.

SOCIETY OF CHEMICAL INDUSTRY MERIT AWARDS. – Three Merit Awards consisting of a gold key and a year's subscription to "Chemistry and Industry" awarded to the three graduating students who achieve the best results in: (a) the B.Sc. course with Honours Chemistry, or Joint Honours in Chemistry and some related science; (b) the B.Eng. course in Chemical Engineering; (c) the Honours course in Biochemistry. Awarded by the Scholarships Committees of the Faculties of Science and Engineering, on the recommendation of the Chairmen of the departments concerned.

DR. KATHLEEN TERROUX PRIZE IN PHYSIOLOGY. – $100, established in 1981 to honour Dr. Kathleen Terroux's outstanding contribution to the teaching of physiology and her devoted counselling to generations of students. Awarded to a student graduating with the B.Sc. degree in the Faculty Program in Physiology for outstanding overall performance and especially for high achievement in physiology courses. Awarded by the Faculty of Science Scholarships Committee on the recommendation of the Department of Physiology.

G. STAFFORD WHITBY PRIZE IN POLYMER CHEMISTRY. – $100, established in 1981 by Dr. Jacob Dolid in honour of the late Professor G. Stafford . Whitby. Awarded, on recommendation of the Department of Chemistry, by the Faculty of Science Scholarships Committee to the undergraduate student with the highest grade in the Introductory Polymer Chemistry course.

Medals

The following medals are awarded to the graduating students who stand highest in the First Class Honours List of the subjects named, provided the Faculty so recommends to Senate:

GOVERNOR-GENERAL'S SILVER MEDAL, awarded to the student standing highest among those graduating "with great distinction" in a major or faculty program of the Faculty of Science.

LOGAN GOLD MEDAL, for Geology or Solid Earth Geophysics.

MAJOR HIRAM MILLS MEDALS, for Biological Sciences. Two medals for award to students graduating with First Class Honours. One medal will be available for students in Biology, Pscychology or Microbiology and Immunology and the other for Anatomy, Biochemistry or Physiology. In the event that there is not a suitable candidate in one of the areas in any year, a second medal may be given in the other area.

ANNE MOLSON GOLD MEDAL, for Mathematics and Natural Philosophy.

HORACE WATSON MEDAL, for Physics, awarded to the student graduating with the highest First Class standing in the Honours Physics Course.

2.16 OPEN TO STUDENTS IN THE SCHOOL OF SOCIAL WORK

For scholarships and prizes open to undergraduate in all faculties, see Section 2.2.

For financial assistance, see Section 3.

Scholarships

WOMEN ASSOCIATES OF McGILL SCHOLARSHIP. - $750, for high academic standing to an undergraduate student having completed at least one year in the B.S.W. program. Preference is given to women students. Awarded by the Faculty of Arts Scholarships Committee on the recommendation of the School of Social Work.

Bursaries and Loans

General information on bursaries and/or loans may be obtained from the Student Aid Office.

Some sources exist for both loans and bursaries through the Schoool. Inquiries may be made at the time of application for admission to the School. Since the School does not receive all the resources for bursary and/or loan purposes until later during the first term, students should endeavour to make other arrangements for their financial needs, whenever possible, prior to entering the School.

Overseas students should inquire of their governments concerning the availability of United Nations, Colombo Plan, or their country's own study grants.

Provincial Assistance

Students registered in Social Work programs are eligible for provincial assistance from their Departments of Education as outlined in Section 3.

Voluntary Agencies

Local or national voluntary agencies often offer bursaries similar to those of the Provinces. Information may be obtained from the School.

2.17 RESTRICTED FUNDS

McGill University no longer accepts endowments for awards which are restrictive in certain respects, such as race, religion, or sex. However, there are some such funds endowed in the past which are still available.

Students who complete in detail the application form for financial aid, obtainable from the Student Aid Office, will be considered automatically for any such funds administered by that office.

Scholarships

MARGARET JANE ALLAN SCHOLARSHIP. – *See Section 2.3.*

EDMUND HENRY BOTTERELL AWARDS. – Four awards of $450 each, bequeathed by the late Mrs. Florence A. Redpath. Awarded by the University Scholarships Committee to women students who have completed the initial year and are entering the intermediate year(s) in the faculties of Arts, Education, Engineering, Management, Music, Science and the Schools of Nursing and Physical and Occupational Therapy. At present the awards are made to students whose academic interests and record combined with personal qualities indicate marked promise.

McLENNAN-ETHEL HURLBATT SCHOLARSHIP. – *See Section 3.2.*

HANNAH WILLARD LYMAN SCHOLARSHIP. – *See Section 2.3.*

EDGAR WILSON AND MARGARET WILSON SCHOLARSHIPS. – *See Section 3.2.*

Prizes

DORA FORSYTH PRIZE. – *See Section 2.3.*

ANNIE MACINTOSH PRIZE. – *See Section 2.15.*

WOMEN'S PERSONNEL GROUP OF MONTREAL PRIZE. – *See Section 2.3.*

Bursaries and Loan Funds

FROTHINGHAM BURSARIES. – *See Section 3.1.*

GREEK STUDENTS BURSARY AND LOAN FUND. – *See Section 3.2.*

ANNETTE S. HILL MEMORIAL BURSARIES. – *See Section 3.2.*

HELEN REYNOLDS BURSARY. – *See Section 3.2.*

MURIEL V. ROSCOE BURSARY. – *See Section 3.2.*

TEMPLE EMMANU-EL SISTERHOOD BURSARY. – *See Section 3.2.*

UNIVERSITY LODGE LOAN FUND. – *See Section 3.2.*

WOLCOTT BURSARY FUND. – *See Section 3.2.*

McGill Alumnae Scholarships

The following scholarships have been established by the McGill Alumnae Society and are awarded annually to distinguished women students, based on recommendations from the Faculties concerned or the University Scholarships Committee.

CARRIE DERICK SCHOLARSHIP. – *See Section 2.15.*

OCTAVIA GRACE RITCHIE ENGLAND SCHOLARSHIP. – *See Section 2.2.*

GEORGINA HUNTER SCHOLARSHIP. – *See Section 2.3.*

ETHEL HURLBATT SCHOLARSHIP. – *See Section 2.3.*

MABEL KING SCHOLARSHIP. – *See Section 1.2.*

CATHERINE I. MACKENZIE SCHOLARSHIP. – *See Section 2.3.*

HILDA DIANA OAKELEY SCHOLARSHIP. – *See Section 2.2.*

ISABELLA McLENNAN SCHOLARSHIP. – *See Section 2.3.*

HELEN R.Y. REID SCHOLARSHIP. – $500, made possible by a legacy from the estate of the late Dr. Helen R.Y. Reid, B.A. 1889, LL.D. 1921, and awarded by the University Scholarships Committee to a distinguished woman student in faculties other than Arts or Science.

75th ANNIVERSARY SCHOLARSHIP. – *See Section 2.15.*

SUSAN CAMERON VAUGHAN SCHOLARSHIP. – *See Section 2.3.*

McGill Alumnae Bursaries

Twelve bursaries, of which the following five are named to honour distinguished women scholars, are awarded by the McGill Alumnae Society. The awards are made to women students in financial need who have satisfactory academic standing. The amount of these bursaries is determined by the Alumnae Scholarship Committee. Applications should be made to the Student Aid Office.

ISABEL BRITTAIN BURSARY. – Named in honour of Miss Isabel Brittain, B.A. 1894, M.A. 1911, twice President of the Alumnae Society and former English teacher at the High School for Girls, Montreal.

VIRGINIA CAMERON BURSARY. – Established in 1967 in memory of Miss Alice Virginia Cameron, B.A. 1925, Deputy Registrar of McGill, a former President of the Alumnae Society, Honorary Life Member of the Graduates' Society and a former President of the University Women's Club. Open to women students entering the penultimate year in the Faculty of Arts or of Science at McGill.

EUNICE PATTON HOOVER BURSARY. – Established in memory of the late Mrs. Hoover by her husband and friends.

GLADYS MURRAY BURSARY. – Established by the Alumnae Society in memory of the late Mrs. Gladys Murray, for thirty-five years Secretary to the Warden of the Royal Victoria College.

LUCIE TOUREN-FURNESS BURSARY. – Named in honour of Madame A. W. Furness, retired Associate Professor of French at McGill.

3 FINANCIAL ASSISTANCE

3.1 GENERAL INFORMATION

Applications for McGill bursaries and loans may be obtained at and must be returned to the Student Aid and Foreign Student Advisor's Office, McGill University, 3637 Peel Street, Montreal, PQ H3A 1X1.

Bursaries and loans are granted on the basis of financial need to full-time students in a program of study leading to an undergraduate degree. Financial aid will be granted only if an adequate academic standing is attained.

Students who are unsatisfied with the amount of an award as decided upon by the Student Aid Office may appeal their case to the Appeals Committee through the Scholarships Office.

All applicants for aid must apply for maximum government grants or other assistance for which they are eligible. (*See Section 3.3*) The Student Aid Office may be able to estimate the amount of such assistance and should be consulted.

3.2 SCHOLARSHIPS, BURSARIES AND LOAN FUNDS

Unless otherwise stated, all funds listed in this section are handled by the STUDENT AID OFFICE and inquiries should be made directly to that office.

A few awards listed in this section, although called Scholarships, have a financial need factor and are treated as bursaries.

Scholarships and Bursaries

AID TO THE PHYSICALLY HANDICAPPED (QUÉBEC). – Students in any faculty who are Canadian citizens or permanent residents and have been resident and domiciled in Québec for two years may apply for an outright grant if they have suffered from poliomyelitis, tuberculosis, certain forms of cardiac trouble, or some other physical disability. Applications available from Regional Office, Department of Education, 600 Fullum Street, 6th Floor, Montreal, PQ.

ANONYMOUS DONATION FOR BURSARIES. – Established by an anonymous donor through the Graduates' Society in 1959. Awarded to entering or returning undergraduates with at least Second Class standing whose records show demonstrated qualities of leadership and character.

MARY H. BEATTY SCHOLARSHIPS AND BURSARIES. – For students in any faculty or year.

BECHTEL CANADA LIMITED BURSARIES. – Bursaries of not less than $300 each for students in the Faculty of Engineering. The $1,200 annual gift may be divided between two or four students, two of whom must be entering the First year.

GORDON BENNETT MEMORIAL BURSARIES. – Established in 1969 to assist students in obtaining higher education in any faculty. Awarded on the basis of academic merit and financial need.

BIRKS FAMILY FOUNDATION STUDENT AID FUND. – Established in 1963 for bursaries to worthy students in any faculty or year.

MURRAY BROOKS MEMORIAL BURSARIES. – Established in 1962 by Mrs. John E. Gilbert in memory of her father to assist students in good standing, preferably students from India, Pakistan, or Ceylon.

REVEREND G.O. BRUCE BURSARIES. – Established by the Reverend Guy Oliver Theodore Bruce in memory of his mother, Louise Howard Bruce and of his brother, John C. Bruce. Awarded to students who have financial need.

ROBERT BRUCE BURSARIES. – Several bursaries of $100 each for students "of promising abili-

ties but of straitened circumstances in Arts, Science, or Engineering."

KENNETH M. BURKE BURSARIES. – Established in 1946 by Dr. Hugh E. Burke in memory of his brother, the late Kenneth M. Burke. Open to students in any faculty, preference being given to children of ministers of religion.

MR. AND MRS. SAMUEL CAMPBELL BURSARY. – Established in 1972 by Mr. Barry Robert Campbell, B.A. 1971, in memory of his grandparents, Mr. and Mrs. Samuel Campbell. Awarded to a student, preferably studying in Honours English Literature or Political Science, on the basis of financial need.

CANADIAN ARMY UNIVERSITY COURSE MEMORIAL BURSARY. – Established by the Canadian Army University Course Association of McGill University as a memorial to their comrades, Richard F. Gyles, Robert J. Lockhart, and James C. Wheeler, who lost their lives in World War II. Preference given to men who volunteered for active service, and their children.

JOSEPH LAWRENCE CAPLAN MEMORIAL BURSARIES. – Awarded to First year students in any faculty who may be thereby helped to obtain a university education.

DR. PATRICIA M. COOKE MEMORIAL BURSARY. – Established by the McGill Biology Students' Union in honour of Dr. Cooke's many years of devoted service to students both in teaching and in guidance. One or more bursaries of approximately $130 to students entering the U2 or U3 year in a program in Anatomy, Biochemistry, Biology, Microbiology and Immunology or Physiology. Awarded primarily on the basis of financial need although good academic standing will be considered as well.

TOM DESMARAIS WHITE PRINT COMPANY BURSARY. – $500, awarded to a needy student in the School of Architecture.

WILLIAM JOHN DEY BURSARIES. – Bequeathed in 1950 by the late Mary Helena Dey in memory of her father, the Reverend William John Dey, M.A., D.D., (B.A.), Class of 1867, McGill University. Open to full-time undergraduates in all faculties and schools.

DOMTAR BURSARY. – $100, established by Domtar Construction Materials Limited and awarded to a needy student in the School of Architecture.

STUART DUNN MEMORIAL SCHOLARSHIP. – Founded by the late Major Charles Gwyllym Dunn of Québec City in memory of his son, Sergeant (Wireless Air Gunner) Stuart Dunn, R.C.A.F., a student at McGill University who died on active service in July, 1941. Preference given to a male student whose home is outside the Island of Montreal. Consideration is given to: (a) the candidate's scholarship, character, personality, and quality of leadership, (b) his need of financial assistance, and (c) the general usefulness to the community of the special branch of study he proposes to follow. .

ROSE AND HARRY ENGELS BURSARY. – $100 to be awarded to any undergraduate B.A. student.

ENGINEERS' WIVES' ASSOCIATION OF MONTREAL BURSARY. – Established in 1961 by a donation from the Professional Engineers' Wives' Association and awarded in alternate years to a needy and deserving student who is entering either First or Second year in the Faculty of Engineering.

GEORGE E. ERLICK BURSARY FUND. – Established in 1981 by a bequest of George E. Erlick, B.A. '34, to assist undergraduate students. Awarded on the basis of financial need and academic standing.

ROBERT CRAIG FANNING MEMORIAL BURSARY FUND. – Established in 1974 by the parents and friends of Robert Craig Fanning, a student in the Faculty of Science, who suffered a fatal accident following his graduation. Awarded to a student in the Faculty of Science, initially with a preference for students enrolled in the Department of Biology's Field Course on Ecology.

FEDERAL-PROVINCIAL LOANS AND BURSARIES. - *See Section 3.3.*

BOB FINEBERG BURSARY. – Established in 1967 by the family and friends in memory of the late Bob Fineberg and Barbara Greenspoon to assist a needy and deserving student. Awarded with the approval of the National Council of Jewish Women on the basis of financial need and academic standing.

HAROLD G. FOX EDUCATION FUND BURSARIES. – Established by donations from the Harold G. Fox Education Fund. To be awarded to needy law students in good standing.

FRIENDS OF McGILL UNIVERSITY, INC. STUDENT FUND. – Established in 1976 to assist U.S. students in any year of an undergraduate degree program. Awarded on the basis of academic standing and financial need. Renewable on merit, amount of award dependent on need from year to year. In the event of an insufficient number of U.S. citizens eligible in any given year, one or more awards may be given to citizens of other countries with the donor's agreement.

FROTHINGHAM BURSARIES. – Bequeathed in 1951 by the late Mrs. Harriet F. Miller, to provide bursaries for outstanding women students in any faculty.

FRUEHAUF TRAILER BURSARY FUND. – Established by the Fruehauf Trailer Company for the purpose of aiding Business Administration students in the intermediate and final year of the Faculty of Management to complete their courses.

AARON AND MARY GOODMAN BURSARIES. – Established in 1963 to assist deserving students in any faculty.

GREEK STUDENTS BURSARY AND LOAN FUND. – Established in 1952 by a group of Greek merchants to assist Greek students attending McGill.

BARBARA GREENSPOON BURSARY. – Awarded to any student with preference given to a student with a penchant for Mathematics.

JACK HAHN BURSARY. – Established by his wife and children in his honour. Open to undergraduate students in the Faculty of Engineering and awarded on the basis of financial need and academic standing.

JOSEPH AND SARAH HARRIS BURSARY FUND. – Established in 1979 by a bequest from Sarah Starikoff Harris. To aid students in any faculty needing financial assistance to continue their studies.

H.E. HERSCHORN BURSARY. – Established under the will of the late H.E. Herschorn, N.P., B.A. 1911, B.C.L. 1914, for a deserving student, studying for the B.Sc., B.A., M.D., C.M., LL.B., or B.C.L. degree in the intermediate or any subsequent year of the course.

HEWITT MEMORIAL BURSARY FUND. – A bequest from the late Frederick T. O'Reilly-Hewitt in memory of his parents, the late Frederick Daniel Hewitt and the late Maria Stenson Hewitt for bursaries. Open to students in the Faculty of Arts or to students in the Humanities and Social Sciences in the Faculty of Graduate Studies and Research. Awarded on the basis of financial need and academic promise.

HIGH SCHOOL OF MONTREAL CENTENNIAL FUND BURSARIES. – Endowed by the Trustess of the High School of Montreal Centennial Fund originally established in 1943. With the closing of the High School in 1979, and in keeping with the original purposes of the fund, the income shall be used to provide bursaries for students who have satisfactory academic standing and need financial assistance. Preference will be given, firstly, to former students of the High School of Montreal, secondly, to other graduates of schools of the Protestant School Board of Greater Montreal, and should these not be sufficient, then to graduates from the Montreal area CEGEPs, or equivalent.

ANNETTE S. HILL MEMORIAL BURSARIES. – Established in 1962 to assist young men of the Protestant faith and of good character from the Maritime Provinces or the Province of Ontario to obtain a college education.

SARAH EMMA HILL SCHOLARSHIP. – Endowed by the late Mrs. Sarah Emma Hill, of Stanstead, Québec, and awarded each year to a student in the Faculty of Education "where assistance is required." Scholarship and indication of professional ability will be considered.

M.A.U.T. - F.S. HOWES AWARD. – Established in 1964 by the McGill Association of University Teachers to mark the great contribution of Dr. F.S. Howes to the life of the Univeristy. Awarded to assist a student of energy and promise who is in financial need. Preference is given to students in the Faculty of Graduate Studies and Research.

McLENNAN-ETHEL HURLBATT SCHOLARSHIP. – Established in memory of the late Miss Ethel Hurlbatt by a legacy from the late Miss Isabella McLennan to the Royal Victoria College. Awarded by the Warden of the Royal Victoria College or her delegate to a woman student on the basis of academic record and financial need.

IBM CANADA BURSARY PROGRAM. – $2,000 annually, established by IBM Canada Ltd., for full-time undergraduates in any year of any faculty who have satisfactory standing and require financial assistance.

INTERPROVINCIAL PIPE LINE LIMITED BURSARY FUND. – Established in 1976 to aid financially needy undergraduate students with an above average academic standing who are entering their second or subsequent year of study. Individual awards will be at least $150 and a minimum of 50% of the fund will be granted to students in the applied sciences. Recipients must be residents of Canada or the United States.

CELIA AMDUR ISAACS MEMORIAL BURSARY. – Established in 1953 by the Montreal Section of the National Council of Jewish Women and Mr. I. Sydney Isaacs. Awarded by the Council upon the recommendation of the Student Aid Office.

JOSEPH ALFRED JACOBSON MEMORIAL SCHOLARSHIP. – Established by the late Mr. and Mrs. Percy N. Jacobson in memory of their son, Flight-Sergeant Joseph Alfred Jacobson, of the Royal Canadian Air Force, who was killed in action on January 28, 1942. Open to students in any faculty. Awarded on the basis of academic strength, interest in university sports, and financial need.

HON. ROBERT JONES BURSARY. – One or more bursaries not exceeding $250 each in any one year are granted to needy students in the Faculty of Arts, Science or Engineering.

FREDERICK SOUTHAM KER BURSARY. – Established in 1941 by the late F.N. Southam in memory of his grandson, Frederick Southam Ker, who was killed in action on September 6, 1940. Awarded to a student in any faculty who gives promise of becoming a good citizen but is handicapped by lack of funds. Financial need, character, and academic record are all considered in making the award.

KHAKI UNIVERSITY AND Y.M.C.A. MEMORIAL SCHOLARSHIP FUND. – The interest on this fund is awarded in scholarships subject to the following two conditions: (i) that the scholarships may be held only by undergraduates; (ii) that the preference is given to sons and daughters of soldiers: (a) who

served in the war of 1914-18; (b) who served in the war of 1939-45.

EMERY AND ERWIN KLINEMAN BURSARY. – Established by Mr. Myer Herschorn to provide bursaries for students in any faculty needing financial assistance to continue their studies.

LAURIN-VITTIE BURSARIES. – Five bursaries bequeathed in 1977 by Mrs. Alice Laurin-Vittie in memory of Malcolm Albert Vittie, Margaret Oliver Hunter-Vittie, James Malcolm Vittie, George Laurin and Evelina Nadon-Laurin. Available to Canadian citizens or permanent residents in the second or subsequent year of the B.A. or B.Sc. program. Awarded on the basis of academic achievement, character and need.

ALICE LAURIN-VITTIE BURSARY. – Bequeathed in 1977 by Mrs. Alice Laurin-Vittie. Available to Canadian citizens or permanent residents in the second or subsequent year of the B.Sc. program. Preference is given to students majoring in Chemistry or Biology. Awarded on the basis of academic achievement, character and need.

SARAH AND JOSEPH LAZARUS BURSARY. – Awarded to a student in financial need with satisfactory academic standing, preference being given to a student in the Jewish Studies Program.

FELIX LEOPOLD BURSARY. – Established in 1953 by Mr. Felix Leopold of Montreal and awarded to needy students in any faculty, who must have a satisfactory academic record and be of good character.

ZAVE LEVINSON MEMORIAL BURSARY. – Established in 1976 from the estate of Zave Levinson who died March 5, 1975. To aid deserving students in any faculty or school.

RAE AND JACK LEVY MEMORIAL BURSARY FUND. – Established in 1975 from the estate of Mrs. Rae Levy who died June 23, 1974. To aid deserving students in need. Tenable for one year.

BELLA LIPKIN-COHEN MEMORIAL BURSARY. – Established in 1972 by Mr. Sydney Brown, and awarded to a needy student, preferably in the Faculty of Arts.

NOURALLA LUTFY MEMORIAL BURSARIES. – Two bursaries, the bequest in 1958 of the late Mr. Nouralla Lutfy and a further donation from his son, Mr. John Lutfy. Awarded to deserving students in any faculty or school.

ISABELLA C. MacRAE SCHOLARSHIP. – Open to residents of Ontario.

CHARLES MARTIN BURSARY FUND. – Bequeathed in 1935 by the late Mrs. Lillie F. Martin in accordance with the wishes of her late husband, Alfred W. Martin, in memory of his father, Charles Martin. Awarded to students in any faculty on the basis of financial need.

J.W. McCONNELL MEMORIAL SCHOLARSHIPS. – Created and endowed by the late Mr. J.W. McConnell of the Board of Governors as a memorial to the men and women of the University who lost their lives in the war of 1939-45. Open to students from any part of Canada and tenable in any undergraduate faculty. Individual awards will be at least $1,500 and awarded on the basis of academic achievement and financial need.

McGILL U.N.T.D. BURSARY. – With the unification of the three branches of the armed services, the U.N.T.D. has ceased to exist. The income from this Fund is now used to supplement university bursary funds.

McGILL UNIVERSITY CONTINGENT CANADIAN OFFICERS TRAINING CORPS BURSARY FUND. – Established in 1978 by the Trustees of the McGill C.O.T.C. Volunteers' Memorial Trust Fund to assist undergraduate students who have satisfactory standing and need financial assistance. Preference will be given to descendents of McGill graduates and past students.

T.H. McGLADE BURSARY. – Established in 1967 by the late T.H. McGlade, B.A. 1947. Available to undergraduate students who are graduates of either Smith Falls Collegiate or St. Francis High School in Smith Falls, Ontario. If there are no qualified applicants from these two institutions, consideration will be given to graduates of other secondary schools of the County of Lanark in Ontario or to candidates from the Upper St. Lawrence Valley, particularly from the Brockville and Prescott areas. Awarded on the basis of academic merit and financial need.

ISABELLA McLENNAN BURSARY AND LOAN FUND. – A rotating fund for students in Architecture to assist in financial emergencies.

J. R. S. McLERNON BURSARY FUND. – Endowed by the late Mr. J. R. S. McLernon to assist students with financial need and good academic standing. Open to students in any faculty or year who are Canadian citizens. The minimum amount of each award is $100.

GEORGE J. McMANUS MEMORIAL SCHOLARSHIPS. – Each has a minimum value of $100 and may be held by students who hold other scholarships and who have real financial need. Open to students in any year of any faculty who have high academic records and need financial help.

NATHAN MENDELSSOHN BURSARIES. – A bequest of $10,000 from the estate of the late Nathan Mendelssohn, the annual income of which is to be used for bursaries for students in need of financial assistance.

DR. FREDERICK WILLIAM CHARLES MOHR SCHOLARSHIPS. – Established under the will of the late Dr. F.W.C. Mohr for scholarships for needy students from communities within the Ottawa Val-

ley District, the amount of each scholarship not exceeding $500 to any one student in any year.

MONTREAL WOMEN'S CLUB ELIZA REID MEMORIAL BURSARY. – Founded in 1927 by the Montreal Women's Club in memory of its first President, Mrs. Robert Reid, to provide a bursary for a student needing financial assistance. Preference will be given to students in the Faculty of Education.

NATIONAL COUNCIL OF JEWISH WOMEN OF CANADA, MONTREAL SECTION, BURSARIES. – A limited number of bursaries valued normally at $100 each. Awarded by the Council after consultation with the Student Aid Office. Academic standing and financial need are considered in making the award. Although there is no legal obligation, the Council hopes that holders will, if possible, return the money at some future time so that other students may in their turn be helped through college.

NL CHEM CANADA INC. BURSARIES. – Open to Canadian students in any year in the Faculty of Engineering or Science and awarded on the basis of academic merit and financial need.

CHARLES ALBERT NUTTING BURSARY. – From a donation made in 1930 by Miss Adelaide Nutting, M.A., R.N., in memory of her brother, Charles Albert Nutting, K.C., B.C.L. (1872). Awarded by the Student Aid Office to needy law students in good standing.

SYDNEY S. PAPPELBAUM BURSARY. – Established in memory of the late Captain Sydney S. Pappelbaum, B.Com., 1952. Open to students in Commerce who have completed Second year and are entering Third year.

EDGAR R. PARKINS MEMORIAL SCHOLARSHIPS AND BURSARIES. – For entering students or for students already in course. The entrance scholarships will be awarded by the University Scholarships Committee and the bursaries by the Student Aid Office without restriction as to faculty. Maximum scholarship value, according to need, up to tuition fees for Montreal residents, up to the amount of tuition fees plus room and board for non-residents.

SAMUEL AND BESSIE PESNER BURSARY. – Established in 1967 to honour Mr. and Mrs. Pesner. Awarded by the Student Aid Office with the approval of the National Council of Jewish Women to a student in any faculty or year on the basis of financial need and academic standing.

SAM AND BESSIE PESNER FOUNDATION BURSARY FUND. – Established in 1979 by a bequest from Samuel Pesner. To aid students in any faculty needing financial assistance.

R.E. POWELL BURSARY FUND. – Established in 1976 by the family of the late R.E. Powell, Chancellor of McGill from 1957 to 1964, to assist students from outside the Montreal area. Open to undergraduate students in the faculties of Science and Medicine who have satisfactory academic standing and need financial assistance. Preference is given to students from the Saguenay district (Arvida, Chicoutimi, Jonquière, Sacre Coeur, etc.).

MONA PRENTICE BURSARY. – Established in 1972 by a bequest from Mona Prentice. Awarded to assist undergraduate students who have satisfactory standing and need financial assistance.

PROCTER & GAMBLE STUDENT BURSARY FUND. – The Procter & Gamble Company of Canada Limited has established a fund of $1,500 to assist needy students in any faculty or year who are of good academic standing. Recipients will normally be Canadian residents who expect to maintain permanent residence in Canada. The minimum award is $100 and may be held concurrently with other awards. The Company hopes that any student who benefits from the fund will later contribute to the general bursary funds of the University when financially able to do so.

JANET PROULX MEMORIAL BURSARY FUND. – Established in memory of Janet Proulx, member of the Executive of the Provincial Association of Protestant Teachers of Quebec and President of the Chateauguay Valley Teachers' Association, who died tragically in an air crash in 1979. Awarded by the Student Aid Office to assist undergraduate students who have satisfactory academic standing and need financial assistance.

QUEEN ESTHER CHAPTER No. 30 ORDER OF THE EASTERN STAR BURSARY. – $100, established in 1951 and awarded to a deserving student entering the University.

HELEN REYNOLDS BURSARY. – Awarded in consultation with the Warden of the Royal Victoria College to a woman undergraduate in any degree course who has completed at least one year's study on this campus. The award is made to a student in financial need who has satisfactory academic standing.

JANET MORISON ROBB BURSARY FOR WOMEN. – The income for one year from an endowment of $2,000, established by the late Hon. James A. Robb, formerly M.P. for Chateauguay-Huntingdon and Minister of Finance, Canada in memory of his daughter, Janet Morison Robb, wife of Hugh Harvie Donald. Preference is given to women students resident in either of the counties of Chateauguay-Huntingdon, or Beauharnois, who are daughters of widows or widowers of limited or moderate means, or daughters of disabled canadian soldiers who have seen active service. Open to students in the Faculty of Agriculture, the school of Food Science, or the Faculty of Education and awarded by the Faculty of Agriculture Scholarships Committee. Students in the Faculty of Education should apply to the Student Aid Office before August 15.

MURIEL V. ROSCOE BURSARY. – Awarded in consultation with the Warden of the Royal Victoria College to a woman undergraduate in any degree course who has completed at least one year's study on this campus. The award is made to a student in financial need who has satisfactory academic standing.

ST. ANDREW'S SOCIETY BURSARY. – Established by the St. Andrew's Society of Montreal, for a needy student, preferably of Scottish blood, proceeding to a degree.

ST. FRANCIS DISTRICT GRADUATES' SOCIETY BURSARY. – $400, restricted to residents of the area covered by the St. Francis District Branch of the Graduates' Society and open to pupils of any high school or private school entering any faculty or school of McGill Univeristy, including Macdonald College. May be renewed for a second year. $250 of the Bursary is to be repaid by the holder at a minimum of $50 per year after graduation.

STE. ROSE-ROSEMERE LIONS CLUB AND LADIES AUXILIARY BURSARY. – $500 to a student in any undergraduate faculty who is in need of financial assistance. Preference is given to students from the Ste. Rose-Rosemere area.

JENNIE AND JOSEPH SALOMON MEMORIAL BURSARY. – Established by the children of Mr. and Mrs. J. Salomon in their memory. Awarded to a deserving student in need who has completed the final undergraduate year in the Faculty of Arts or Science, and is entering a graduate program. Tenable for one year.

PETER SEBESTYEN MEMORIAL BURSARY. – Established in 1981 for students of good academic standing, in need of financial assistance, who show qualities of leadership and who participate in university activities.

ANGUS McCOY SMITH BURSARY FUND. – Founded by the late Mr. and Mrs. Allan L. Smith in memory of their son, Lieut. Angus McCoy Smith, a McGill graduate, who was killed in World War II. Awarded to students in the Faculties of Arts or Science entering the final year. Academic record, character and general promise, as well as financial need, are considered.

TEMPLE EMMANU-EL SISTERHOOD BURSARY. – Established in 1946 in memory of the men who lost their lives in the war of 1939-45. Open to men undergraduates in all faculties.

JOSEPH TREIGER MEMORIAL AWARD. – Founded in 1974 by the Law Undergraduate Society in memory of the late Joseph Murray Treiger, B.A. (Hons.), 1948-1973, a member of the Society whose untimely death occurred during the final year of his studies in the Faculty of Law. Awarded every second year in the amount of $100 to a Law undergraduate student who, at the beginning of his third year, has demonstrated financial need and an interest in serving the community.

UNIVERSITY BURSARIES. – Open to full-time degree course students in all faculties and schools. *See general regulations in Section 3.1.*

UNIVERSITY CHALLENGE BURSARY FUND. – Established in 1971 by $10,000 which was won by a McGill team comprised of Julius H. Grey, B.C.L. 3, William W. Kredentser, B.Sc. 3, Brian M. Shecter, B.A. 4, and Mrs. Faith E. Wallis, B.A. 4, who participated in the CTV Television Program "University Challenge". To provide bursaries to academically deserving students with financial need.

EDWARD VOLCKMAR BURSARY FUND. – Established in 1972, by Miss Grace H. Prescott in memory of Edward Volckmar. Awarded to a student in need in the Faculty of Engineering and may be renewed until graduation.

GORDON WEBBER BURSARIES. – Established by a bequest of the late Professor Gordon Webber, together with a number of donations from his former students, for needy students in the School of Architecture.

WILLIAMS-WAIT BURSARY. – Established in 1980 by a bequest from Eric W. Wait for a student from Ottawa or the surrounding neighbourhood who is entering the Faculty of Science. Awarded on the basis of financial need and high academic standing.

EDGAR WILSON AND MARGARET WILSON SCHOLARSHIPS. – Bequeathed in 1956 by the late Edgar Moles Wilson to provide the Edgar Wilson Scholarships to men and the Margaret Wilson Scholarships for women to assist them in obtaining higher education in any faculty. Awarded on the basis of academic merit and financial need. Awards will not exceed the annual tuition fees.

MORRIS W. WILSON MEMORIAL BURSARY FUND. – Established in 1946 by contributions from a large number of friends and associates of the former Chancellor. To assist undergraduate students who have satisfactory academic standing and need financial assistance.

CHARLES S.C. WISDOM BURSARY. – Established in 1956 by the late Mrs. Stuart Albert Wisdom in memory of her late son, Charles S.C. Wisdom, a graduate of the Royal Military College, Kingston, and of the McGill School of Commerce. Awarded in consultation with the Dean of the Faculty of Management to a deserving student in the last two years of the B.Com. program.

WOLCOTT BURSARY FUND. – Bequeathed in 1974 by the late Mrs. Anna D'Aeth (née Wolcott) to provide a scholarship or bursary for some needy student born in the West Indies.

ROY M. WOLVIN MEMORIAL BURSARIES. – Established by the late Mrs. Roy M. Wolvin in memory of her husband. A number of bursaries are available to students in any undergraduate faculty who

have a good academic record and need financial assistance.

WOMEN ASSOCIATES OF McGILL BURSARY. – Available to students in any faculty on the basis of scholarship and need. The winner is chosen by the Executive of the Women Associates of McGill from candidates recommended by the Student Aid Office and selected from the applicants for University bursaries.

RICHARD WOOD MEMORIAL BURSARY. – An annual fund established in 1964 by the Laurentian Lanes Sportsman's Bowling League for deserving students in any faculty.

MAURICE ZANGER BURSARY. – To be awarded to a deserving student, in need of financial assistance, who is a Canadian citizen or permanent resident and who has completed the first year of a program in any faculty.

Loan Funds

BURNSIDE STUDENT LOAN FUND. – A Student Loan Fund established to assist needy students in all Faculties.

CANADA STUDENT LOAN PLAN. – Canadian students from provinces other than Québec may apply for federal loans. Addresses for the nine provincial authorities administering this plan are listed in Section 3.3.

CANADIAN CLUB OF MONTREAL FIFTIETH ANNIVERSARY STUDENT AID FUND. – Established in November 1955 to commemorate the Club's Fiftieth Anniversary. The purpose is to foster patriotism by encouraging the study of the institutions, arts, literature, and resources of Canada, and the appreciation of matters of interest and concern to Canadians.

CANADIAN INSTITUTE OF MINING AND METALLURGY MONTREAL BRANCH LOAN FUND. – Established in 1958 by the Montreal Branch of the Institute to provide loans to undergraduate or graduate students in Geological Sciences, Metallurgical Engineering and Mining Engineering.

BERTHA COHEN REVOLVING LOAN FUND. – Established to provide small, short-term loans to aid students in emergencies in any faculty.

MR. AND MRS. HENRY COHEN REVOLVING LOAN FUND. – Established in 1967 to mark the thirtieth wedding anniversary of Mr. and Mrs. Henry Cohen by their son, Mr. Howard T. Cohen, B.Com. 1961, and their son-in-law, Mr. Philip Goldsmith.

COMMERCIAL SOCIETY LOAN FUND. – To aid students who are entering their Final year in the B.Com. program to complete their course. Loans are repayable within two years after graduation.

J.M. FAIRBAIRN LOAN FUND. – Bequeathed in 1967 by the late Mrs. J.M. Fairbairn for loans for students in the Faculty of Engineering.

AMY FREEDMAN MEMORIAL LOAN FUND. – Established in 1968 by the parents and friends of the late Amy Freedman for the purpose of making emergency loans to needy students (already in course at McGill) in any faculty. Special consideration will be given to students who come from and are returning to developing countries.

GEORGE HENRY FROST FUND. – Founded by the late G.H. Frost, B.Sc '60, to aid students in the Faculty of Engineering who require financial assistance. The applicants' academic standing is considered.

HERSCHORN LOAN FUND. – Established by the late Mr. H.R. Herschorn for the purpose of making loans to students in any faculty who would otherwise be unable to continue their studies.

BERTRAM KIDD AND MARJORIE SHARP MEMORIAL LOAN FUND. – Established in 1968 by parents and friends in memory of Bertram Kidd and Marjorie Sharp and is available to any McGill students.

BERNARD LEVITON LOAN FUND. – Established by Mr. Sidney Ender in memory of the late Bernard Leviton for students in the Faculty of Engineering with preference given to students in Electrical Engineering.

J.B. LYNCH LOAN AND BURSARY FUND. – Established by Mr. J.B. Lynch, President of Siscoe Mines Limited, for loans or in some cases outright grants to needy students.

JOHN HAROLD MacLAREN STUDENT LOAN FUND. – Established in 1965 by a bequest from John Harold MacLaren.

DR. DOUGLAS W. MACMILLAN LOAN FUND. – Established by a gift from Dr. MacMillan to assist needy students in any faculty.

MARTLET FOUNDATION LOAN FUND. – Established in 1954 by the Martlet Foundation for students with good academic standing and athletic ability who are in need of financial assistance. Apply to the Director of Athletics.

McGILL SOCIETY OF ONTARIO LOAN FUND. – Established in 1938 by the Ontario Branch of the Graduates' Society of McGill.

MRS. M. DOROTHEA MILLAR LOAN FUND. – Established in 1956 to assist students, graduate or undergraduate, to pursue studies or research at McGill.

NATIONAL COUNCIL OF JEWISH WOMEN LOAN FUND. – Established for the purpose of aiding students in the Facuty of Education to complete their courses.

J.K. PRATT MEMORIAL LOAN FUND. – Established in 1952 in memory of the late Janetta K. Pratt who was Cashier at McGill from 1919 until her death in 1952.

SCIENCE '25 MEMORIAL LOAN FUND. – Established in 1955 by the Class of Science '25 for Engineering undergraduates.

HAROLD N. SEGALL LOAN FUND. – A donation in 1957 from the Jerry Segalls to assist deserving students in any faculty.

ST. GEORGE'S LOAN FUND. – Established in 1955 by a donation of $500 to assist students registered in the Faculty of Education.

STUDENTS' SOCIETY LOAN FUND. – Open to students in all faculties with good academic standing. Primary consideration given to the candidates' contributions to Students' Society activities.

STUDENT TEACHERS' SOCIETY LOAN FUND. – Established in 1954 by a donation from the Student Teachers' Society to assist students registered in the Faculty of Education. Additional donations supporting this fund have been received form the following sources: I.O.D.E. Ethel Walkem Joseph Fund, Gardner Kneeland Fund, Milton Hersey Fund, Dr. S.P. Robins Fund, and J.C. Wilson Fund.

PROFESSOR HERBERT TATE LOAN FUND. – Established in honour of Professor Herbert Tate to assist students in any faculty. Special consideration will be given to students who, like the donor, begin a university education as mature students and require financial assistance.

GEORGE E. TILLSON LOAN FUND. – Established in 1955 by Mr. George E. Tillson. Unrestricted.

UNIVERSITY LOAN FUND. – Established to assist needy students in all Faculties. Loans are normally made only to students in upper years with good academic standing.

UNIVERSITY LODGE LOAN FUND. – For Masons and the children of Masons attending McGill, established by University Lodge No. 84 Q.R., A.F. and A.M. Loans will not exceed annual tuition fees. Open to qualified students in all faculties and years and awarded on need and academic merit.

WADDELL LOAN FUND. – Founded by the late J.B. Waddell. Loans are made under the same conditions as apply to the George Henry Frost Fund, but are available also to graduate students.

MORTON J. WHITE LOAN FUND. – Established in 1957 by a bequest from the late Morton J. White, to assist deserving students in the B.Com. program.

WICKENDEN LOAN FUND. – Established in 1958 by Mr. John Wickenden to aid students in Engineering with better than average standing in previous year.

GWYN WILLIAMS MEMORIAL LOAN FUND. – Established by friends and members of staff of McGill University in memory of Gwyn Williams in recognition of her many years of loyal and efficient service in the Administration Offices of McGill University.

CLIFFORD WONG LOAN FUND. – Founded in 1981 by Clifford Wong, B.Arch. 1960, to aid students in any faculty who have satisfactory academic standing and require financial assistance.

3.3 FEDERAL AND PROVINCIAL LOANS AND BURSARIES

In all cases, a basic qualification is that applicants must be Canadian citizens or permanent residents with one year's residence and domiciled in the province to which they apply.

When a student applies for financial assistance from government, Canadian or non-Canadian, and when certification of the student's status is required on such an application form this certification must be obtained from the McGill Student Aid Office.

In all provinces, except Québec, the provincial authority listed below administers the Canada Student Loan Plan (Federal) as well as their own programs. The addresses are as follows:

Alberta:	Student Assistance Board Department of Education Administration Buildings Edmonton, AB.
British Columbia:	Student Aid Committee c/o Department of Education Parliament Buildings Victoria, B.C.
Manitoba:	The Student Aid Office Dept. of Youth & Education 413 Robert Fletcher Bldg. 1181 Portage Avenue Winnipeg, MB R3C OV8
New Brunswick:	The Director of Student Aid Department of Youth Centennial Building Fredericton, NB E3D 5H1
Newfoundland and Labrador:	Student Aid Division Department of Education Confederation Building St. John's, NF
Northwest Territories:	Director of Education Government of the Northwest Territo Yellowknife, NT XOE 1H0.

Nova Scotia:	Canada Student Loan Committee Department of Education Box 578 Halifax, NS B3J 2Z1.
Ontario:	(apply after May 1st) Student Awards Branch Ministry of Colleges and Universities Mowat Block, Queen's Park, Toronto, ON M7A 2B4.
Prince Edward Island:	Student Aid Officer Department of Education Charlottetown, PE C1A 7N8.
Québec:	(apply after May 1st) Student Aid Office McGill University 3637 Peel Street Montreal, PQ H3A 1X1.
Saskatchewan:	Student Assistance Board Department of Education Avord Tower Regina, SK
Yukon Territory:	Students Financial Assistance Awards Committee Superintendent of Education Box 2703 Whitehorse, YT Y1A 2C6.

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